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CATALOGUE

OF THE

BIRDS

IN THE

BRITISH MUSEUM.

VOLUME XXV.

LONDON:
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1896.

CATALOGUE

OF THE

GAVIÆ AND TUBINARES

IN THE

COLLECTION

OF THE

BRITISH MUSEUM.

GAVIÆ

(TERNS, GULLS, AND SKUAS)

BY

HOWARD SAUNDERS.

TUBINARES

(PETRELS AND ALBATROSSES)

BY

OSBERT SALVIN.

LONDON:
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PREFACE.

It has been a fortunate circumstance that for the preparation of the present Volume the cooperation of Mr. H. Saunders and Mr. O. Salvin could be secured, who for many years past have made the Birds of the families of Gulls and Petrels the special subject of their respective studies. As also the collections formed by these gentlemen have been incorporated with the series in the British Museum, the latter possesses of both these groups a collection unrivalled as to its intrinsic value, if not also as to the number of species and specimens.

According to the lists given, this Collection consists now of :—

	Species.	Types.	Specimens.
Gaviæ	115	17	4649
Tubinares.....	109	27	1086

Among the Tubinares only, some of the species (15) are not represented in the Collection.

Beside the many friends and correspondents who have rendered material assistance in the preparation of this Volume by the loan or gift of specimens, and who will be enumerated in the introductory remarks of the Authors, I have to refer specially to the authorities of the United States National Museum and to the Hon. W. Rothschild, of whom the former sent important types for comparison, whilst the latter placed the whole of his rich collection at the disposal of the Authors.

I have acceded with pleasure to the request of the Director of the Museum to see through the press this and the two remaining Volumes for which the arrangements were made during my term of office.

Finally, this would seem to be an appropriate place to pay a tribute to the memory of Henry Seebohm, by whose death, on November 26th, Ornithology has lost a most earnest and ardent student and the British Museum one of its most generous friends and benefactors. For the past fifteen years he took a deep interest in the growth and arrangement of the Collection of Birds in the British Museum, contributing, without stint, either from his own Collection or by special purchase, any specimens that were required to complete the Museum series or to aid in the preparation of the Catalogue. In the latter work he took an active part as the author of the Fifth Volume, which treated of the Warblers and Thrushes. After presenting his immense Collection of Eggs, and incorporating it with that of the Museum, he undertook and completed a Manuscript Catalogue of the whole. By his Will he conferred his last benefit on the Museum, bequeathing to the Trustees the entire Collection which at the time of his death was still in his possession.

ALBERT GÜNTHER,
Keeper of the Zoological Department
(*retired*).

British Museum (N. H.),
December 16, 1895.

INTRODUCTION TO THE CATALOGUE OF GAVIÆ.

Few introductory remarks are requisite for my portion of the present volume, inasmuch as the current opinions respecting the systematic position of the Order Gaviæ are set forth briefly—but it is to be hoped adequately—on pp. 1–3. It is, however, necessary to allude to the important collections which have been presented to the National Museum of late years, and which have so greatly facilitated the study of the *Laridæ*: namely, those of the late Lord Tweeddale and of Major Wardlaw Ramsay, Mr. A. O. Hume, Mr. Henry Seebohm, and Messrs. Salvin and Godman. And it is incumbent upon me to make special reference to the energetic collectors and generous donors who have contributed largely to our knowledge of this family of birds. In the front rank of these are Admiral A. H. Markham, Commander J. R. H. MacFarlane, Staff-Paymaster H. M. Harrison, Colonel H. W. Feilden, Colonel W. V. Legge, R.A., Mr. Ernest Gibson, and Mr. John Young; while the Hon. Walter Rothschild placed his entire collection at my disposal. Nor must the names of Lord Lilford, Professor D. Gill, Messrs. W. T. Blanford, J. A. Harvie-Brown, Gervase Mathew, R.N., S. F. Rowland, and G. Stephen be omitted. For the loan of specimens and much assistance in the United States, thanks are due to the authorities at the Smithsonian Institution, Mr. William Brewster and Dr. C. Hart Merriam. I am also under obligation to Dr. R. Bowdler Sharpe and Mr. W. R. Ogilvie-Grant for their ready co-operation during the two years spent in working at the Museum.

HOWARD SAUNDERS.

7 Radnor Place, W.,
July 30, 1895.

INTRODUCTION TO THE CATALOGUE OF TUBINARES.

Upwards of twenty years have passed since I began to pay special attention to the Petrels, and during that time, with Mr. Godman, collected all the available specimens we came across. But the amassing anything like a good series of skins of these birds proved a very slow process. Our chief acquisition, by exchange, was the greater part of the collection formed by the late John Gould, whose early interest in the Petrels generally is well-known, and was continued after he parted with his Australian collection. Amongst the specimens thus acquired by us were many of great interest, as will be seen in the following pages. Another valuable series of Petrels was most kindly given to us in 1883 by Admiral A. H. Markham, having been formed by him when in command of H.M.S. 'Triumph' on the Pacific Station. This collection contained the types of *Oceanodroma markhami*, Salv., and *Diomedea irrorata*, Salv., the last a remarkable Albatros from the coast of Peru, of which the type still remains the only known example. The whole of our series was handed over to the British Museum in 1888.

The Museum Collection, apart from that added by us, is a rich one and includes the spoils of several important Government Expeditions. Of these I may mention the following:—The Antarctic Expedition of H.M.SS. 'Erebus' and 'Terror' under Sir James Ross; the Voyage of H.M.S. 'Rattlesnake,' the naturalist of which was John Macgillivray; the Voyage of H.M.S. 'Herald,' naturalist F. M. Rayner. Then came the Transit of Venus Expedition to Kerguelen Land, resulting in a collection of Petrels and interesting notes on them by the Rev. A. E. Eaton, forming a large part of Dr. Bowdler Sharpe's article on the Birds of the island published in the 'Philosophical Transactions,' vol. 168. The voyage of H.M.S. 'Challenger' produced a most valuable collection of Petrels' skins, spirit specimens and eggs, the first of which were named by myself,

and the second formed the basis of the late W. A. Forbes's memoir on the anatomy of the Tubinares, both published in the 'Challenger' Report. Lastly, Dr. Coppinger secured when in H.M.S. 'Alert' skins of several interesting species of this Order.

Of other considerable collections added to the Museum I may mention that of the late Dr. R. McCormick, who accompanied Sir James Ross, and whose collection, bequeathed to the Trustees, forms a valuable addition to the Antarctic series of Petrel skins. The late Harry Berkeley James also left to the Museum a good series of specimens of Chilian species. Mr. H. Seebohm, with his usual liberality, presented the whole of his series of these birds, which consists chiefly of representatives of the species of the North Pacific Ocean, from the neighbourhood of Japan and the Bonin Islands to certain islands in mid-ocean. Another important series was secured by the Earl of Crawford, mostly in the South Atlantic and South Pacific Oceans. The Museum has also been enriched by many other donations of greater or less extent, amongst which I may mention the series of Petrels obtained by Mr. W. R. Ogilvie-Grant on the islands near Madeira, and by the same gentleman in company with the Hon. C. Baring during a second visit to the same islands, when they established the fact of the presence of *Oceanodroma cryptoleucura* on Porto Santo Island and Great Salvage Island, its previous known domicile being the Hawaiian and Galapagos Archipelagos in the far distant Pacific Ocean. They also discovered *Pelagodroma marina*, previously supposed to be a straggler from the South Seas, breeding in numbers on Great Salvage Island. Besides the Museum specimens immediately before me, I have, as opportunity offered, examined those in the Leyden, Berlin, Vienna, and Paris Museums, and I have also had the advantage of the loan of the types of Peale and Dr. Coues, and some of those of Mr. Ridgway, through the kindness of the authorities of the Smithsonian Institution, Washington. I have also had before me the very interesting types described by Signor Giglioli and Count Salvadori, which were obtained by the first-named gentleman when on board the Italian frigate 'Magenta' during her voyage round the World.

The Hon. Walter Rothschild lent me the whole of his large collection of Petrels, including the types of the species recently

described by him, and this series has been of material use to me. I have also examined the collection in the University of Cambridge and that of Canon Tristram, both helping to elucidate points of interest.

Dr. Elliott Coues's papers on the *Procellariidæ*, published in the Proceedings of the Academy of Natural Sciences, Philadelphia, in 1864 and 1866, give the first serious attempt to classify these birds with proper definitions ; Bonaparte's previous essays in 1855 and 1856 being of a cursory character and often misleading. Dr. Coues's Monographs, though perhaps too much influenced by Bonaparte's writings, must always be consulted by those wishing to master the intricacies of this complicated subject.

OSBERT SALVIN.

Hawksfold, Fernhurst, Sussex,
November 3, 1895.

SYSTEMATIC INDEX.

Order XIII. GAVIÆ.

Fam. I. LARIDÆ.

Subfam. 1. STERNINÆ.

Page

1. Hydrochelidon, *Boie* 5
   1. leucoptera (*Meisner & Schinz*) 6, 456
   2. hybrida (*Pall.*) .. 10, 456
   3. nigra (*L.*) 17
   4. surinamensis (*Gm.*) .. 20
2. Phaëthusa, *Wagler*..... 23
   1. magnirostris (*Licht.*).. 23
3. Gelochelidon, *Brehm* 25
   1. anglica (*Mont.*) .. 25, 456
4. Hydroprogne, *Kaup* 32
   1. caspia (*Pall.*) 32
5. Seena, *Blyth* 37
   1. aurantia (*J. E. Gray*)..... 37, 456
6. Sterna, *L.* 40
   1. melanogaster, *Temm* 43, 456
   2. forsteri, *Nuttall* 46
   3. albistriata (*G. R. Gray*) 48
   4. virgata, *Cab.* 50
   5. vittata, *Gm.*..... 51, 456
   6. hirundinacea, *Less.* .. 52
   7. fluviatilis, *Naum.* . 54, 457
   8. macrura, *Naum.* 62
   9. longipennis, *Nordm.* 67, 457
   10. albigena, *Licht.* 69
   11. dougalli, *Mont.* 70
   12. cantiaca, *Gm.*..... 75
   13. maxima, *Bodd.* 80
   14. elegans, *Gambel*..... 84
   15. eurygnatha, *Saunders* . 85
   16. media, *Horsfield* 86
   17. bergii, *Licht.*..... 89
   18. bernsteini, *Schleg*..... 96
   19. frontalis, *G. R. Gray* 97, 457
   20. aleutica, *Baird* 98
   21. lunata, *Peale* 100
   22. anæstheta, *Scop.*.. 101, 457
   23. fuliginosa, *Gm.*.. 106, 457
   24. balænarum, *Strickl.* .. 111
   25. nereis (*Gould*) 112
   26. sinensis, *Gm.*..... 113
   27. minuta, *L.* 116, 457
   28. saundersi, *Hume* . 120, 457
   29. antillarum (*Less.*) 122
   30. superciliaris, *Vieill.* .. 124
   31. lorata, *Phil. & Landb.* . 126
   32. melanauchen, *Temm.* . 126
   33. trudeauii, *Audub.* 130
7. Nænia, *Boie* 132
   1 inca (*Less.*) 132
8. Procelsterna, *Lafresn.* .. 133
   1. cærulea (*F. D. Bennett*) 133
   2. cinerea (*Gould*) 135
9. Anous, *Steph.* 136
   1. stolidus (*L.*) 136
   2. galapagensis, *Sharpe*.. 143
10. Micranous, *Saunders* 143
   1. tenuirostris (*Temm.*) 144, 457
   2. leucocapillus (*Gould*) . 145
   3. hawaiiensis (*Rothsch.*). 148
11. Gygis, *Wagler*..... 149
   1. candida (*Gm.*) 149
   2. microrhyncha, *Saunders* 152

Subfam. 2. RHYNCHOPINÆ.

12. Rhynchops, *L.* 152, 457
   1. nigra, *L.* 153
   2. intercedens, *Saunders* . 155
   3. melanura, *Swains.*.... 156
   4. flavirostris, *Vieill.* 158
   5. albicollis, *Swains.*.... 159

Subfam. 3. LARINÆ.

13. Xema, *Leach* 161
   1 sabinii (*J. Sabine*) 162
   2. furcata (*Néboux*) 165
14. Rhodostethia, *Macgill.* .. 167
   1. rosea (*Macgill.*) 167
15. Larus, *L.* 169
   1. minutus, *Pall.* 173
   2. ichthyaëtus, *Pall.* 176
   3. melanocephalus, *Natt.* 180
   4. saundersi (*Swinh.*) .. 183
   5. philadelphia (*Ord*) .. 185

Page
6. serranus, *Tsch.* 188
7. franklini, *Swains.* 191
8. atricilla, *L.* 194
9. cirrhocephalus, *Vieill.* . 198
10. maculipennis, *Licht.* .. 200
11. glaucodes, *Meyen* 203
12. ridibundus, *L.* .. 207, 457
13. brunneicephalus, *Jerd.* 215, 458
14. leucophthalmus, *Temm.* 219
15. hemprichi (*Bruch*) .. 221
16. fuliginosus, *Gould*.... 222
17. modestus, *Tsch.*..... 223
18. heermanni, *Cass.* 225
19. belcheri, *Vigors* 226
20. crassirostris, *Vieill.* 227, 458
21. gelastes, *Thienem.*..... 230
22. bulleri, *Hutton* 233
23. novæ-hollandiæ, *Steph.* 235
24. scopulinus, *Gray* 238
25. hartlaubi (*Bruch*) 240
26. marinus, *L.* 241, 458
27. dominicanus, *Licht.* .. 245
28. fuscus, *L.* 250
29. affinis, *Reinh.*..... 254
30. occidentalis, *Audub.*.. 257
31. schistisagus, *Stejneg.*.. 258
32. argentatus, *L.* .. 260, 458
33. cachinnans, *Pall.* 266
34. vegæ, *Palmén* 269
35. audouini, *Payr.*..... 271
36. delawarensis, *Ord.*... 273
37. californicus, *Lawr.* .. 276
38. canus, *L.*..... 277
39. brachyrhynchus, *Rich.*. 283
40. glaucescens, *Naum.* .. 284
41. nelsoni, *Henshaw* 287
42. kumlieni, *Brewster* .. 288
43. glaucus, *Brünn.*.. 289, 458
44. leucopterus, *Faber*.... 295
16. Gabianus, *Bruch* 297
1. pacificus (*Lath.*) 297
17. Leucophæus, *Bruch* 299
1. scoresbii (*Traill*) 299
18. Pagophila, *Kaup* 301
1. eburnea (*Phipps*) 301
19. Rissa, *Steph.* 305
1. tridactyla (*L.*) .. 305, 458
2. brevirostris (*Bruch*) .. 312

Fam. II.
STERCORARIIDÆ.

1. Megalestris, *Bp.*..... 314
1. catarrhactes (*L.*) . 315, 458
2. chilensis (*Bp.*) 318
Page
3. antarctica (*Less.*) 319
4. maccormicki (*Saund.*) . 321
2. Stercorarius, *Briss.*..... 322
1. pomatorhinus (*Temm.*) 322, 458
2. crepidatus (*Banks*) 327, 458
3. parasiticus (*L.*) 334

Order XIV. TUBINARES.

Fam. I.
PROCELLARIIDÆ.

Subfam. 1. PROCELLARIINÆ.

1. Procellaria, *L.* 343
1. pelagica, *L.* 343
2. tethys, *Bp.*..... 346
2. Halocyptena, *Coues* 346
1. microsoma, *Coues* 346
3. Oceanodroma, *Reich.*.... 347
1. leucorrhoa (*Vieill.*) .. 348
2. cryptoleucura, *Ridgw.* 350
3. macrodactyla, *Bryant*. 351
4. socorroensis, *Towns.*.. 352
5. fuliginosa (*Gm.*) 352
6. melania (*Bp.*)..... 353
7. markhami (*Salv.*) 354
8. tristrami, *Stejn.*..... 354
9. homochroa (*Coues*) .. 355
10. monorhis (*Swinh.*) .. 356
11. hornbyi (*Gray*)..... 356
12. furcata (*Gm.*) 357

Subfam. 2. OCEANITINÆ.

4. Oceanites, *Keys. & Bias.* . 358
1. oceanicus (*Kuhl*) 358
2. gracilis (*Elliot*) 361
5. Garrodia, *Forbes*..... 361
1. nereis (*Gould*) 361
6. Pelagodroma, *Reich.*.... 362
1. marina (*Lath.*) 362
7. Pelea, *Ridgw.* 364
1. lineata (*Peale*) 364
8. Cymodroma, *Ridgw.* 364
1. melanogaster (*Gould*) . 364
2. grallaria (*Vieill.*) 366
3. albigularis (*Finsch*) .. 367
4. mœstissima (*Salv.*) .. 367

Fam. II. PUFFINIDÆ.

Subfam. 1. PUFFININÆ.

1. Puffinus, *Brisson*..... 368
1. leucomelas, *Temm.* .. 370
2. cuneatus, *Salv.* 371

Page

—3. bulleri, *Salv.* 371
—4. chlororhynchus, *Less.* . 372
—5. gravis (*O'Reilly*) 373
—6. kuhli (*Boie*) 375
—7. creatopus, *Coues* 376
8. anglorum (*Temm.*) .. 377
9. yelkouanus (*Acerbi*) .. 379
10. opisthomelas, *Coues* .. 380
11. auricularis, *Towns.* .. 380
12. gavia (*Forst.*)..... 381
13. persicus, *Hume* 381
14. obscurus (*Gm.*) 382
15. assimilis, *Gould* 384
16. elegans, *Gigl. & Salvad.* 385
17. carneipes, *Gould* 385
18. griseus (*Gm.*)..... 386
19. tenuirostris (*Temm.*).. 388
20. nativitatis, *Streets* .. 389
2. Priofinus, *Hombr. & Jacq.* 390
1. cinereus (*Gm.*) 390
3. Thalassœca, *Reich.*..... 392
1. antarctica (*Gm.*) 392
4. Priocella, *Hombr. & Jacq.* 393
1. glacialoides (*Smith*) .. 393
5. Majaqueus, *Reich.* 395
1. æquinoctialis (*L.*) 395
2. parkinsoni (*Gray*).... 397
6. Œstrelata, *Bp.* 397
1. macroptera (*Smith*) .. 399
2. aterrima, *Bp.*..... 401
3. lessoni (*Garnot*) 401
4. hæsitata (*Kuhl*)..... 402
5. jamaicensis (*Bancroft*) 403
6. rostrata (*Peale*) 404
7. parvirostris (*Peale*) .. 405
8. incerta (*Schl.*)..... 405
9. mollis (*Gould*) 406
10. magentæ, *Gigl. & Salvd.* 407
11. phæopygia, *Salv.* 407
12. brevipes (*Peale*)..... 408
13. hypoleuca, *Salv.* 409
14. nigripennis, *Rothsch.* . 409
15. brevirostris (*Less.*) 409
16. solandri (*Gould*) 410
17. externa, *Salv.* 411
18. cervicalis, *Salv.*..... 411
19. neglecta (*Schl.*)..... 412
20. arminjoniana, *Gigl. & Salvad.* 413
21. trinitatis, *Gigl. & Salvad.* 413
22. heraldica, *Salv.*..... 414
23. gularis (*Peale*) 414
24. fisheri, *Ridgw.* 415
25. scalaris, *Brewst.*..... 416
26. leucoptera (*Gould*) ... 416

Page

27. defilippiana, *Gigl. & Salvad.* 417
28. cooki (*Gray*) 417
29. longirostris, *Stejn.*.... 418
30. axillaris, *Salv.* 418
7. Pagodroma, *Bp.* 419
1. nivea (*Gm.*) 419
8. Bulweria, *Bp.* 420
1. bulweri (*Jard.*) 420
2. macgillivrayi (*Gray*) . 421

Subfam. 2. FULMARINÆ.

9. Ossifraga, *Hombr. & Jacq.* 422
1. gigantea (*Gm.*) 422
10. Fulmarus, *Steph.* 424
1. glacialis (*L.*) 425
2. glupischa, *Stejn.* ... 427
3. rodgersi, *Cassin* 427
11. Daption, *Steph.* 428
1. capensis (*L.*) 428
12. Halobæna, *Is. Geoffr.*.... 431
1. cærulea (*Gm.*) 431
13. Prion, *Lacép.* 432
1. vittatus (*Gm.*) 432
2. banksi, *Gould*..... 434
3. desolatus (*Gm.*) 434
4. ariel, *Gould* 436

Fam. III. PELECANOIDIDÆ.

1. Pelecanoides, *Lacép.* 437
1. urinatrix (*Gm.*) 437
2. exsul, *Salv.* 438
3. garnoti (*Less.*) 439

Fam. IV. DIOMEDEIDÆ.

1. Diomedea, *L.* 440
1. exulans, *L.* 441
2. regia, *Buller* 443
3. chionoptera, *Salv.*.... 443
4. albatrus, *Pallas* 444
5. irrorata, *Salv.* 445
6. nigripes, *Aud.* 445
7. immutabilis, *Rothsch.* 446
8. melanophrys, *Temm.*.. 447
9. bulleri, *Rothsch.* 448
2. Thalassogeron, *Ridgw.* .. 449
1. cautus (*Gould*) 449
2. salvini, *Rothsch.* 450
3. layardi, *Salv.*..... 450
4. culminatus (*Gould*) .. 451
5. chlororhynchus (*Gm.*) 451
3. Phœbetria, *Reich.* 453
1. fuliginosa (*Gm.*) 453

Appendix to Tubinares..... 455

CATALOGUE

OF

BIRDS.

Order XIII. GAVIÆ.

The Skuas, Gulls, Terns, and Skimmers, which make up the above Order, were formerly united by many authors with the Petrels; but Nitzsch, after showing ('Pterylography,' 1840) that in their pterylosis the Gaviæ closely approached the Limicolæ, restricted to the Gaviæ the name Longipennes and placed the Petrels in the separate Order Tubinares. Mr. P. L. Sclater, who edited Nitzsch's great work for the Ray Society in 1867, was naturally influenced by that author's views, and in a paper entitled 'The present state of the Systema Avium' (Ibis, 1880, p. 409), he enunciated his reasons for placing the Gulls &c. in the Order Gaviæ (=Longipennes, Nitzsch): the Petrels forming the Order Tubinares next in succession. This is not the place for the discussion of the views of later writers with regard to the degrees of relationship of the Gaviæ to the Limicolæ on the one side, and to the Alcidæ on the other; but it may fairly be said that on the whole there has been a tendency to remove the Tubinares to a still greater distance from the Gaviæ. There are, however, some exceptions. Dr. A. Reichenow ('Die Vögel der zoologischen Gärten,' i. p. 17, 1882) includes three families—*Procellariidæ*, *Laridæ*, and *Sternidæ*—in his Order Longipennes; while Dr. Elliott Coues considers the Gaviæ and Tubinares as forming suborders of the same.

Considering the Gaviæ equivalent to Longipennes as restricted by Nitzsch, Sclater, and others, this Order has frequently been taken to consist of one Family—*Laridæ*; divided into four subfamilies—*Stercorariinæ* (Skuas), *Larinæ* (Gulls), *Sterninæ* (Terns), and

Rhynchopinæ (Skimmers). Dr. Coues, in his Monograph of the North-American *Laridæ* ('Birds of the North-West,' pp. 589–717, 1874), says (p. 592) that "the *Rhynchopinæ* are in every respect true Terns except in the feature of the unique bill." He adds:—"Examination of the internal characters of the four subfamilies, *Lestridinæ* [= *Stercorariinæ*], *Larinæ*, *Sterninæ*, and *Rhynchopinæ*, demonstrates that the first and second and the third and fourth are more nearly related to each other than are the second and third." This arrangement of the four subfamilies is maintained by Dr. Coues in his 'Key to North-American Birds,' 2nd ed. (1884). The compilers of the American Ornithologists' Code and Check-List, pp. 84–97 (1886), went further, and, while restricting their Longipennes to the Gaviæ, they divided this Order into three families—*Stercorariidæ*, *Laridæ* (subfamilies *Larinæ* and *Sterninæ*), and *Rhynchopidæ*. These three families are also adopted by Mr. Ridgway in his 'Manual of North-American Birds,' p. 20 (1887). They are upheld by Dr. Shufeldt in his papers "Comparative Osteological Notes on the Extinct Bird *Ichthyornis*" (Journ. Anat. & Phys. xxvii. pp. 336–342) and "On the Classification of the Longipennes" (Amer. Nat. 1893, pp. 233–237). He considers that "*Rhynchops* is, in some of its osteological characters, notably in the skull, the vertebral chain and pelvis, not very unlike the fossil cretaceous bird *Ichthyornis*." He is, moreover, of opinion that the *Stercorariidæ* "stand between the *Laridæ* and the *Rhynchopidæ*, being more nearly related to the first-named than they are to the Skimmers." These views are deserving of consideration and may eventually prove to be correct, but at present the evidence seems insufficient to justify their adoption in this volume.

Dr. Coues has, however, clearly shown the important characters in which the *Stercorariidæ* differ from the *Laridæ* (points which seemed to have escaped some later writers), and I have no hesitation in accepting these two as families. They have been adopted as subdivisions by Dr. R. Bowdler Sharpe in his 'Review of Recent Attempts to Classify Birds,' p. 72 (1891); and I further agree with him that, for the present, it is undesirable to elevate the *Rhynchopinæ* to the rank of a third family.

In these introductory remarks the references have been carefully restricted to those writers whose works had a very direct bearing upon the classification of this Order; but I am also indebted to the treatises of Professors Huxley and Newton, the late A. Garrod and W. A. Forbes, Drs. Fürbringer, Gadow, and Stejneger, Mr. Seebohm and others, in addition to the authorities already cited—and, among the last, especially to Dr. Elliott Coues.

Order GAVIÆ.

Palate schizognathous.
Nasals schizorhinal.
Basipterygoid processes absent.
Front toes entirely connected by webs.
Wing aquintocubital, *i. e.* the fifth secondary wanting.
Bill simple, except in the subfamily *Rhynchopinæ*.
Cervical vertebræ fifteen.
Coraco-humeral groove distinct.
Furcula with hypocleidium.
Primaries: ten large and visible, one minute and concealed.
Aftershaft to the contour-feather present.
Spinal feather-tract: well defined on the neck by lateral bare tracts, and forked on the upper back.
Rectrices twelve.
Oil-gland tufted.
Hypotarsus with two grooves.
Young covered with down when hatched, and able to run in a short time.
Eggs seldom, if ever, exceeding three in number; spotted or scrolled with dark colours on a white, buff, or olivaceous ground.

Synopsis of the Families.

I. Bill without a cere; sternum with two notches on each side of the posterior margin; toes partially or fully webbed; claws feeble or moderate ..... **Laridæ**, p. 3.
II. Bill with a cere; tip of the upper mandible hooked; sternum with only one notch on each side of the posterior margin; cæca much larger than in *Laridæ*; toes fully webbed, furnished with large, strong, hooked and sharp claws ..... **Stercorariidæ**, p. 314.

Family I. LARIDÆ.

Key to the Subfamilies.

a. Bill straight, rather slender, both mandibles of about equal length (paragnathous); pterylosis perfectly Scolopacine; tail slightly or distinctly forked ..... *STERNINÆ*, p. 4.

b. Bill with the mandibles much compressed, the upper freely movable, the under considerably exceeding the upper in length (hypognathous); pterylosis as in *Sterna* .. *RHYNCHOPINÆ*, [p. 152.

c. Bill with the upper mandible longer and bent down over the tip of the inferior one (epignathous); tail usually square, seldom forked, exceptionally cuneate..... *LARINÆ*, p. 161.

Subfamily I. STERNINÆ.

Key to the Genera.

a. Tail from nearly square to deeply forked.

a'. Head without prolonged plumes at the gape.

a''. Tail-feathers rounded or slightly pointed; tail short, less than half the length of wing.

a'''. Bill small, the culmen less than twice the length of tarsus; feet feeble; webs between toes considerably indented ..... 1. HYDROCHELIDON, [p. 5.

b'''. Bill very large and stout, culmen more than twice the length of the tarsus; feet moderately strong; webs only slightly indented..... 2. PHAËTHUSA, p. 23.

b''. Outer tail-feathers longest, pointed.

c'''. Tarsus very long, exceeding middle toe and claw; bill robust, obtuse; tail less than half the length of the wing ..... 3. GELOCHELIDON, [p. 25.

d'''. Tarsus short, less than middle toe and claw.

*a*⁴. Tail very short, less than one third of the wing; bill exceptionally stout and deep..... 4. HYDROPROGNE, [p. 32.

*b*⁴. Tail very long, more than three fourths of the wing; bill stout, the genys very short ..... 5. SEENA, p. 37.

*c*⁴. Tail at least half—and generally more than half—the length of the wing; bill compressed and slender; tarsus generally shorter than—and never exceeding—the middle toe with the claw ..... 6. STERNA, p. 41.

b'. Head with conspicuously prolonged plumes at the gape; bill stout, culmen decurved; tail slightly forked, the two outer pairs of rectrices nearly equal in length..... 7. NÆNIA, p. 132.

b. Tail graduated, feathers pointed, the outer pair of rectrices shorter than the next pair.

c'. Foot very long, the middle toe and claw exceeding the exposed culmen in length; the second pair of rectrices from the outside the longest; general colour grey. 8. PROCELSTERNA, [p. 133.

d'. Middle toe and claw shorter than exposed culmen.
c''. Bill strong, decurved; distance from the angle of the genys to the tip less than that to the gape; the fourth pair of rectrices from the outside the longest ..... 9. ANOUS, p. 136.
d''. Bill slender and long; the distance from the angle of the genys longer than that to the gape; third pair of rectrices from the outside the longest. 10. MICRANOUS, p. 143.
e''. Bill stout at the base, pointed; culmen almost straight or slightly upcurved; plumage pure white; toes slender, the middle toe abnormally long; webs deeply indented ..... 11. GYGIS, p. 149.

1. HYDROCHELIDON.

	Type.
Hydrochelidon, *Boie, Isis*, 1822, p. 563	H. nigra.
Viralva, *Stephens, in Shaw's Gen. Zool.* xiii. pt. 1, p. 166 (1826)	H. nigra.
Pelodes, *Kaup, Natürl. Syst.* p. 107 (1829)	H. hybrida.

Range. Temperate portions of North America; Europe, Asia, Africa, Australia, and New Zealand; occasionally South America in winter. Nesting in marshes, on tussocks or floating vegetation.

Key to the Species.

a. Black or dark grey below (summer plumage).
a'. Upper tail-coverts and tail white; underparts black as far as the vent; under wing-coverts black; coverts along carpal joint white to a considerable extent ..... *leucoptera*, p. 6.
b'. Upper tail-coverts and tail grey.
a''. Bill orange-red (blood-red in life); chin and sides of face white; throat and breast grey, passing into blackish grey on the abdomen; under wing-coverts white .. *hybrida*, p. 10.
b''. Bill black; chin and sides of the face black, like the underparts; under wing-coverts pale grey.
a'''. Underparts to vent dark lead-grey .. *nigra*, p. 17.
b'''. Underparts very deep black; line along the edge of carpals conspicuously white..... *surinamensis*, p. 20.
b. White below (winter plumage and young). [p. 8.
c'. Tail white ..... *leucoptera* ad. hiem.,
d'. Tail grey.
c''. Rump grey, like the back.
c'''. Larger: bill stouter; feet with the webs much incised ..... *hybrida*, p. 14.
d'''. Smaller: bill more slender; feet with webs less incised ..... *nigra*, p. 19. / *surinamensis*, p. 20.
d'. Rump white, in contrast with the grey of the back and tail..... *leucoptera* juv., p. 8.

1. Hydrochelidon leucoptera.

? L'Hirondelle de mer cendrée, *Briss. Orn.* vi. p. 210 (1760 : juv.).
? L'Hirondelle de mer tachetée, *Briss. Orn.* vi. p. 216, pl. xx. fig. 2 (1760 : juv.).
? Sterna fissipes, *Linn. Syst. Nat.* i. p. 228 (1766 : S. Europe); *P. L. S. Müller, S. N.* p. 354 (1773); *Gm. S. N.* i. p. 610 (1788).
? Sterna nævia, *P. L. S. Müller* [*nec Linn.*], *S. N.* p. 353 (1773); *Gm. S. N.* i. p. 609 (1788).
? Cinereous Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 363 (1785).
? Sterna cinerea, *Gm. S. N.* i. p. 607 (1788); *Lath. Ind. Orn.* p. 808 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 167 (1819); *Gray, Gen. B.* iii. p. 659 (1846).
Sterna fissipes, *Pallas, Zoogr. Rosso-Asiat.* ii. p. 338 (1811 : Don to Ob); *Ayres, Ibis*, 1871, p. 267 (Transvaal).
Sterna leucoptera, *Meisner & Schinz, Vög. Schweiz*, p. 264 (1815); *Temm. Man. d'Orn.* p. 483 (1815); *id. op. cit.* ed. 2, p. 747 (1820); *Vieill. Enc. Méthod.* i. p. 348 (1820); *Brehm, Beitr. Vögelk.* iii. p. 676 (1822); *Licht. Verz. Doubl.* p. 81 (1823 : Nubia); *Werner, Atlas, Palmipèdes*, pl. 12 (1828); *Vieill. F. Française, Ois.* p. 397, pl. 160. fig. 2 (1828); *Lesson, Traité*, p. 622 (1831); *Savi, Orn. Tosc.* iii. p. 83 (1831); *St.-Hilaire, Exp. Sc. Morée, Zool.* p. 56 (1833); *Gould, B. Eur.* v. pl. 423 (1837); *Naum. Vög. Deutschl.* x. p. 214, pl. 257 (1840); *Schinz, Europ. Faun.* p. 375 (1840); *Crespon, Orn. Gard*, p. 477 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcviii & p. 248 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 278 (1840); *Crespon, F. Mérid.* ii. p. 119 (1844); *Schl. Rev. Crit.* p. cxxxi (1844); *Mühle, Orn. Griechenl.* p. 147 (1844); *Yarr. Brit. B.* 1st Suppl. p. 50, and 2nd ed. iii. p. 527 (1845); *Reichenb. Natat.* tab. xx. figs. 803–806 (1848); *Degland, Ois. Eur.* ii. p. 351 (1849); *Thompson, B. Irel.* iii. p. 307 (1851); *Bald. Naum.* 1851, Heft iv. p. 47 (Hungary, nesting); *Brandt, in Lehmann's R. n. Buchara*, p. 330 (1852 : Trans-Ural steppe); *Kjærb. Danm. Fugle*, p. 332, taf. 60 B (1852), and *Suppl.* taf. 21. figs. 3 & 4 (1854); *Heugl. Syst. Uebers.* p. 71 (1856 : Egypt and Nubia); *Meyer, Brit. B.* vii. p. 105, pl. 296 (1857); *Linderm. Vög. Griechenl.* p. 181 (1860); *Powys, Ibis*, 1861, p. 357 (Corfu); *Wright, Ibis*, 1864, p. 153 (Malta); *Dyb. J. f. O.* 1868, p. 338 (Daüria); *Borggr. Vogelf. Norddeutschl.* p. 145 (1869); *Heugl. in Peterm. Mitth.* p. 408 (1869); *Ayres, Ibis*, 1871, p. 267 (Potchefstroom); *Harting, Handb. Brit. B.* p. 169 (1872); *Buckley, Ibis*, 1874, p. 391 (Transvaal); *Coues, Check-l.* no. 575 bis (1874 : Wisconsin); *Seebohm, Ibis*, 1882, p. 231 (Kirghiz Steppes); *id. Brit. B.* iii. p. 257 (1885); *Alléon, Ornis*, 1886, p. 425 (Dobrudscha); *Stevenson & Southw. B. Norfolk*, iii. p. 316 (1890); *Jäckel u. Blas. Vög. Bayerns*, p. 376 (1891); *Hartl. Abh. nat. Ver. Bremen*, xii. Heft ii. p. 334 (1892 : Tientsin).
Sterna grisea, *Horsf. Tr. Linn. Soc.* xiii. p. 190 (1820, Java; type in B. M.); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 159 (1825).
Hydrochelidon leucoptera, *Boie, Isis*, 1822, p. 563; *Kaup, Natürl. Syst.* pp. 109 & 196 (1829); *Brehm, Vög. Deutschl.* p. 796 (1831); *Bp. Cat. Ucc. Eur.* p. 77 (1842); *Reichenb. Syst. Nat.* tab. iv. (1850), and *Av. Syst. Nat., Longip.* p. v (1852); *Macgill. Br. B.* v. p. 661 (1852); *Licht. Nomencl. Av.* p. 98 (1854); *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 350 (1855); *Schrenck, Reise Amurl.* p. 511 (1859); *Tristr. Ibis*, 1860, p. 82 (E. & W. Sahara); *Radde, Reise Sibir., Vög.* p. 389 (1863); *Salvad. Ucc. Sard.* p. 123 (1864); *Filippi, Viagg. Pers.* p. 352 (1865); *Doderl. Avif. Mod.*

& Sicil. p. 252 (1869); *Fritsch, Vög. Eur.* p. 461, tab. 54. fig. 7 (1870); *Hume, Ibis*, 1870, p. 346 (Tippera); *Saund. Ibis*, 1871, p. 399 (S. Spain); *Hutton, Cat. N.-Z. B.* p. 43 (1871); *Finsch, J. f. O.* 1872, p. 43, & 1874, p. 206; *Gould, B. Gt. Brit.* v. pl. 76 (1873); *Brooke, Ibis*, 1873, p. 346 (Sardinia); *Buller, B. New Zeal.* p. 287 (1873); *Dresser, B. Eur.* viii. p. 321 (1875), pls. 590 & 591; *Irby, Orn. Str. Gibr.* p. 211 (1875); *Saund. P. Z. S.* 1876, p. 641 (revision); *id. Bull. Soc. Zool. Fr.* 1877, p. 201 (S.E. Spain); *David & Oustal. Ois. Chine*, p. 524 (1877); *Finsch, Verh. z.-b. Ges. Wien*, xxix. p. 280 (1879: Omsk, &c.); *Hume, Str. Feath.* viii. p. 115; *id. t. c.* p. 495 (Andamans) (1879); *Legge, B. Ceylon*, p. 1000 (1880); *Russow, Orn. Ehst- Liv-, u. Curlands, Archiv. Nat. Livl.* (2) ix. p. 198 (1880); *Giglioli, Ibis*, 1881, p. 218 (Florence: May, rare); *Ridgw. Bull. U.S. Nat. Mus.* no. 21 p. 53 (1881); *Buller, Man. B. New Zeal.* p. 81 (1882); *Salvin, Cat. Strickl. Coll.* p. 622 (1882); *Coues, Check-l. N. Am. B.* p. 124 (1882); *B. O. U. List Brit. B.* p. 185 (1883); *Oates, B. Brit. Burm.* ii. p. 420 (1883); *Coues, Key N. Am. B.* 2nd ed. p. 770 (1884); *Sharpe, ed. Layard's B. S. Afr.* p. 700 (1884); *Saund. 4th ed. Yarrell's Brit. B.* iii. p. 522 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 323 (1884); *Tristr. Faun. & Flor. Palestine*, p. 137 (1884); *Whitehead, Ibis*, 1885, p. 47 (Corsica, 28 May); *Homeyer, Ornis*, 1885, p. 81; *Torre u. Tschusi, t. c.* p. 564 (Austria-Hungary); *Taczan. Ornis*, 1886, p. 506 (Poland, breeding); *A. O. U. Check-l.* p. 96 (1886); *Giglioli, Arif. Ital.* p. 419 (1886); *id.* 1° *Resoc. Av. Ital.* p. 635 (1889); *id.* 2° *Resoc.* p. 653 (1890); *id.* 3° *Resoc.* p. 512 (1891); *Salvad. Ucc. Ital.* p. 280 (1887); *Booth, Rough Notes*, iii. (1887); *Hartert, MT. orn. Ver. Wien*, 1887. p. 180, and *Ibis*, 1892, p. 520 (East Prussia, once); *Ridgw. Man. N. Am. B.* p. 47 (1887); *Symonds, Ibis*, 1887, p. 335 (Orange Free State); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. 3, p. 57 (1888: Samarcand); *Buller, B. N. Zeal.* 2nd ed. ii. p. 76 (1888); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 61 (1889); *Guillemard, Ibis*, 1889, p. 219, and *Lilford, t. c.* p. 347 (Cyprus); *Feilden, t. c.* p. 502 (Barbados); *Tristr. Cat. Coll. B.* p. 8 (1889); *Saunders, Man. Brit. B.* p. 619 (1889); *Everett, B. Borneo*, p. 210 (1889); *Radde u. Walter, Ornis*, 1889, p. 127 (Trans-Caspia); *Riesenth. Wasservög. Mitteleurop.* p. 145 (1890); *Keller, Orn. Carinthiæ*, p. 308 (1890); *Heine & Reichen. Nomencl. Mus. Hein.* p. 356 (1890); *Saunders, Ibis*, 1891, p. 187 (Lake Léman); *Payton, t. c.* p. 465 (Mogador); *Styan, t. c.* p. 509 (Kiukiang); *Madarász, Ausst. Ungar. Vogelf.* p. 121 (1891); *Frivaldsky, Av. Hung.* p. 181 (1891); *De La Touche, Ibis*, 1892, p. 502 (Foochow and Swatow, spring); *Fatio & Studer, Cat. distrib. Ois. Suisse*, pp. 64, 65 (1892); *Cory, Cat. W. Ind. B.* p. 83 (1892: Barbados); *Sharpe, Bull. B. O. Club*, no. xi. p. v (1893: Suakin); *Shelley, Ibis*, 1894, pp. 27 & 476 (Lake Shirwa); *Lilford, Col. Figs. Brit. B.* pt. xxix. (1894); *Reichen. Vög. Deutsch-O.-Afr.* p. 21 (1894: Tanganyika).

Viralva leucoptera, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 170 (1826).

Hydrochelidon leucourus [sic], *Scyffertiz & Brehm, Isis*, 1833, p. 985.

Hydrochelidon leucopterum, *Bp. Comp. List B. Eur. & N. Am.* p. 61 (1838).

Hydrochelidon grisea, *Boie, Isis*, 1844, p. 184; *Gray, List Anseres in Brit. Mus.* p. 180 (1844); *id. Gen. B.* iii. p. 660 (1846).

Hydrochelidon fissipes, *Boie, Isis*, 1844, p. 184: *Taczan. Bull. Soc. Zool. France*, 1876, p. 262 (East Siberia); *Radde, Orn. Caucas.* p. 488 (1884); *Brusina, Orn. Croatica*, p. 92 (1889).

Hydrochelidon nigra, *Gray* [*nec Linn.*], *List Anseres in Brit. Mus.* p. 180 (1844); *id. Gen. B.* iii. p. 660 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 291 (1849); *Bp. C. R.* xlii. p. 773 (1856); *Jaub. et Barth.-Lapomm. Rich. Orn. Midi Fr.* p. 398 & fig. (1859); *A. E. Brehm, Reis. Habesch*, p. 229 (1863); *Gray, Cat. Brit. B.* p. 243 (1863); *Swinh. P. Z. S.* 1863, p. 328, and *Ibis*, 1863, p. 97 (China); *Jerd. B. India*, iii. p. 875, *App.* (1864); *Antin. Cat. descr. Ucc.* p. 115 (1864: Nile to 8° N. lat.); *Blasius, J. f. O.* 1866, p. 82; *Degl. & Gerbe, Orn. Eur.* ii. p. 466 (1867); *Loche, Expl. Sc. Algér., Ois.* ii. p. 207 (1867); *Salvad. Faun. Ital., Ucc.* p. 284 (1871); *Swinh. P. Z. S.* 1871, p. 421; *Gray, Hand-list B.* iii. p. 121 (1871); *Shelley, B. Egypt*, p. 301 (1872); *Gurney, Andersson's B. Damara-land*, p. 363 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1447 (1873); *Coues, B. N.-West*, p. 708 (1874); *Salvad. Ucc. Born.* p. 372 (1874); *Walden, Tr. Z. S.* viii. p. 103 (1874: Celebes); *Dresser, Ibis*, 1876, p. 416 (Turkestan); *Prjev. in Rowley's Orn. Misc.* iii. p. 145 (1878: breeding on Tsaidemin Lake and basin of Lake Hanka); *Finsch, Verh. z.-b. Ges. Wien*, xxix. p. 280 (1879: Chinese Altai, 5000 feet elevation); *Bolau, J. f. O.* 1882, p. 342 (Daüria); *Menzbier, Bull. Soc. Mosc.* lviii. p. 136 (1883: Volga to Oka); *W. Blasius, Verh. z.-b. Ges. Wien*, xxxiii. p. 73 (1883: S.E. Borneo); *Shelley, Ibis*, 1888, p. 306 (Lamu, E. Africa); *W. Blasius, Ornis*, 1888, p. 633 (Gt. Sanghir I.); *Vorderm. Nat. Tijdschr. Nederl. Ind.* li. p. 413 (1892: Java).

Hydrochelidon subleucoptera, *Brehm, Naum.* 1855, p. 295; *id. Vogelfang*, p. 350 (1855).

Hydrochelidon javanica (*nec Horsfield*), *Swinhoe, Ibis*, 1860, p. 68; *id. op. cit.* 1861, p. 345 (North China).

Sterna nigra, *Schlegel, Mus. P.-B.*, Sternæ, p. 31 (1863); *Holdsw. P. Z. S.* 1872, p. 481 (Ceylon); *Legge, J. A. S. B.* 1874, p. 58 (Ceylon); *id. Str. Feath.* iii. p. 376; *Blanford, East. Pers.* ii. p. 294 (1876); *Blas. u. Nehrkorn, Verh. z.-b. Ges. Wien*, 1882, p. 432 (Amboina: cf. *Ibis*, 1883, p. 212).

Hydrochelidon niger, *Severtzoff, Turkest. Jevotnie*, p. 70 (1873: up to 1000 ft.).

Hydrochelidon hybridus, *Tacz. J. f. O.* 1873, p. 111, and 1874, p. 337 (Daüria: cf. *Bull. Soc. Zool. Fr.* 1876, p. 262).

Adult male in breeding-plumage. Head, neck, and upper back dark glossy black; coverts on the carpal joint pure white; greater wing-coverts pearl-grey; secondaries darker, passing into slate-grey; primaries frosted with pearl-grey, which soon wears off the outer quills, leaving the webs sooty black, with a well-defined narrow whitish streak down the middle of the inner webs of the four outer primaries; shafts white; back and rump greyish black; upper tail-coverts and tail pure white; underparts deep black; vent white; flanks, under wing-coverts, and axillaries black: bill livid red; feet orange-red; webs of toes much indented. Total length 9·3 inches, culmen 1·1, wing 8·2, tail 3·1, tarsus 0·75, middle toe with claw 1.

Adult female. Similar to the male.

Adult in autumn and winter plumage. In the latter part of July, when the moult begins (in Europe), the bird is curiously parti-coloured, the new feathers of the head, neck, and underparts being white and those of the back grey (paler than in *Hydrochelidon nigra*). See specimen from Valencia, East Spain, July 25th. Later, the

underparts, including the under wing-coverts and axillaries, become white, the crown of the head and the nape being merely mottled with black; but by the following April the black colour has reappeared to a considerable extent, especially on the axillaries. See specimen from the Andaman Islands, April 16th.

Immature. In birds which are not mature, though capable of breeding, the black of the underparts has a brownish tinge and the tail-feathers are pearl-grey, especially towards the tips. In winter, like the adult.

Young. Similar to the winter plumage of the somewhat immature bird, but much mottled with dark brown on the upper parts, and the tail-feathers slightly darker grey with a brownish tinge towards the tips; *upper tail-coverts always white.*

Nestling. Ruddy fawn-colour, mottled with black above, unspotted pale cinnamon-brown below.

Hab. Central and Southern Europe in summer, to about 55° N. on migration; eastward across temperate Asia to China (but not to Japan); southward in winter to Australia, New Zealand, and all Africa; once in Barbados; once in Wisconsin.

a. ♂ ad. sk.	Albufera de Valencia, E. Spain, July (*R. Martin*).	H. Saunders Coll.
b. ♀ vix ad. sk.	Mallorca, Balearic Islands, May (*H. S.*).	H. Saunders Coll.
c, d. Ad. st.	Italy.	Purchased.
e, f, g. ♂ ad. sk.	Hungary, April, May.	Hungarian Nat. Mus. [P.].
h, i. ♂ ♀ ad. sk.; *k.* Pull. sk.; *l.* Juv. st.	Volga, June, July, August (*H. Möschler*).	H. Saunders Coll.
m. Juv. sk.	Egypt (*G. E. S.*).	Shelley Coll.
n, o. ♂ ♀ ad. sk.	Damietta, Egypt, April (*Filipponi*).	Shelley Coll.
p. ♀ ad. sk.	Faioum, Egypt, May 31 (*J. H. Gurney*).	Shelley Coll.
q. Ad. sk.	Mogador, Morocco, May.	C. A. Payton, Esq. [P.].
r. Imm. sk.	Gambia.	Gov. Rendall [C.].
s. ♀ imm. sk.	Katenbella, Benguela, Nov.	Monteiro Coll.
t, u. ♀ juv. st.	Omanbonde, Damaraland (*C. J. Andersson*).	H. Saunders Coll.
v. Juv. sk.	Cape Colony (*E. L. Layard*).	H. Saunders Coll.
w. ♂ juv. sk.	Transvaal, Dec. (*T. E. Buckley*).	H. Saunders Coll.
x. ♀ juv. sk.	Potchefstroom, Transvaal, Nov. 24 (*T. Ayres*).	H. Saunders Coll.
y. Juv. sk.	Loopsprit, Transvaal, Dec. (*T. A.*).	H. Saunders Coll.
z. ♂ juv.; *a'.* Ad. sk.	Potchefstroom, Transvaal, Nov., July (*T. A.*).	J. H. Gurney, Esq. [P.].
b', e', d'. Juv. sk.	Nyasaland, Dec.	H. H. Johnston, Esq., C.B. [P.].
e'. Juv. sk.	Zambesi.	Dr. Bradshaw [C.].
f'. ♀ imm. sk.	Lamu, E. Africa, 2° 25′ S. (*F. J. J.*).	F. J. Jackson, Esq. [P.].

g'. Ad. sk.	Zoulla, Abyssinia, June 13 (*W. Jesse*).	Tweeddale Coll.
h'. Juv. sk.	Suakin.	Capt. R. H. Penton [P.].
i'. Juv. sk.	Bogos, Abyssinia (*Esler*).	H. Saunders Coll.
k'. ♂ juv. sk.	Hambantotta, Ceylon, July (*W. V. Legge*).	H. Saunders Coll.
l'. Ad. sk.	Comilla, Tippera, Eastern Bengal (*V. Irwin*).	Hume Coll.
m', *n'*, *o'*. Juv.; *p'*. Ad. sk.	Pegu, Sept.–Oct. (*E. W. O.*).	Oates Coll.
q'. Ad. sk.	South Andamans, April 16 (*F. A. de Roepstorff*).	Hume Coll.
r'. Imm. sk.	Malacca (*S. Pinwill*).	Tweeddale Coll.
s', *t'*, *u'*. Juv. sk.	Java.	India Museum [P.].
v'. Ad. sk.	Java (winter pl., *Horsfield*).	India Museum [P.].
w', *x'*. Imm. sk.	Java. (Types of *H. grisea* of Horsfield and of Gray's list.)	India Museum [P.].
y'. Juv. sk.	Baram Pt., N. Borneo, Oct. (*A. E.*).	A. Everett, Esq. [C.].
z'. Imm. sk.	Celebes.	Seebohm Coll.
a''. Juv. sk.	Mindanao, Philippines, Oct. (*E. L. Moseley*).	Steere Expedition.
b'', *c''*. Ad.; *d''*. Juv. sk.	Canton, China (*S. Bligh*).	Tweeddale Coll.
e'', *f''*. Juv.; *g''*. Imm. sk.	Canton, China (*S. Bligh*).	Seebohm Coll.
h'', *i''*. Ad. sk.	Takoo, China (*Swinhoe*).	Seebohm Coll.
k''. Ad.; *l''*. Juv. sk.	Cape York, N. Australia.	Gould Coll.
m''. Juv. sk.	Cape York, N. Australia, Nov. 9.	Voy. H.M.S. 'Rattlesnake.'
n'', *o''*. Imm. sk.	N.W. Australia.	Dr. J. R. Elsey [P.].
p''. Juv. sk.	Barbados, Oct. 24 (*H. W. F.*).	Col. H. W. Feilden [P.].

2. **Hydrochelidon hybrida.**

Sterna hybrida, *Pallas, Zoogr. Rosso-Asiat.* ii. p. 338 (1811: S. Volga, and Sarpa); *Keys. u. Blas. Wirb. Eur.* pp. xcviii, 248 (1840); *Mühle, Orn. Griechenl.* p. 147 (1844); *Degland, Orn. Eur.* ii. p. 353 (1849); *Heugl. Syst. Uebers.* p. 70 (1856: Egypt & Nubia, resident); *Linderm. Vög. Griechenl.* p. 180 (1860); *Schleg. Mus. P.-B.*, Sternæ, p. 33 (1863); *Wright, Ibis*, 1864, p. 153 (Malta); *Harting, Handb. Br. B.* p. 168 (1872); *Hume, Str. F.* i. p. 281 (1873: Sind); *R. M. Adam, Str. F.* i. p. 403 (1873: Sambhur Lake); *Oates, Str. F.* iii. p. 348 (1875); *Blanf. East. Pers.* ii. p. 294 (1876); *Milne-Edwards & Grandidier, H. N. Madag., Ois.* pl. 649 (1882: osteology); *Seebohm, Ibis*, 1882, p. 231 (Volga delta); *id. Brit. B.* iii. p. 260 (1885); *Allèon, Ornis*, 1886, p. 424 (Dobrudscha, breeding); *Stevenson & Southw. B. Norfolk*, iii. p. 306 (1890); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 305 (1890); *Sharpe, Ibis*, 1891, p. 116 (Fao); *Jäckel u. Blas. Vög. Bayerns*, p. 374 (1891).

Sterna leucopareia, *Natterer, in Temm. Man. d'Orn.* p. 746 (1820); *Meyer, Taschenb.* iii. p. 189 (1822); *Boie, Isis*, 1822, p. 563; *Brehm, Beitr. Vögelk.* iii. p. 674 (1822); *Licht. Verz. Doubl.* p. 81 (1823: Nubia); *Brehm, Lehrb.* p. 694 (1824); *Werner, Atlas, Palmipèdes*, pls. 10, 11 (1828); *Savi, Orn. Tosc.* iii. p. 92 (1831); *Gould, B. Eur.* v. pl. 424 (1837); *Naum. Vög. Deutschl.* x. p. 168,

pl. 255 (1840); *Schinz, Europ. Faun.* p. 374 (1840); *Temm. Man. d'Orn.* 4e part. p. 463 (1840); *Crespon, Orn. Gard,* p. 476 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* ii. p. 278 (1840); *Crespon, Faune Mérid.* ii. p. 118 (1844: breeding in August); *Schleg. Rev. Crit.* p. cxxxi (1844); *Rüpp. Syst. Uebers.* p. 139 (1845: Lower Egypt); *Yarr. Brit. B.* 2nd ed. iii. p. 511 (1845); *Hewits. Eggs Brit. B.* ii. p. 430*, pl. 120* (1846); *Thomps. Ann. Nat. Hist.* xx. p. 79 (1847); *id. B. Irel.* iii. p. 298 (1851); *Reichenb. Natal.* tab. xxi. figs. 812–815 (1848); *Bald. Naum.* 1851, Hft. iv. p. 44 (Hungary, breeding); *Kjærb. Danm. Fugle,* p. 331, taf. 40 B (1852); *id. Suppl.* taf. 21. figs. 1, 2 (1854); *Powys, Ibis,* 1860, p. 357 (Butrinto, in winter); *A. Anderson, Ibis,* 1872, p. 81 (Fyzabad, breeding); *Sintenis, J. f. O.* 1877, p. 68.

Sterna javanica, *Horsfield, Trans. Linn. Soc.* xiii. p. 198 (1820) [not of his *Zool. Res.* p. 8] (type in Brit. Mus.); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 158 (1825); *Gray & Hardw. Ill. Ind. Zool.* i. pl. 70. fig. 1 (1832: Cawnpore); *Reichenb. Natat. Novit.* vii. tab. cclxx. fig. 2258 (1850).

Sterna delamotta (*sic*), *Vieill. Enc. Méthod.* i. p. 350 (1820: Picardy).

? Sterna cantiaca, *Raffles, Tr. Linn. Soc.* xii. p. 329 (1821).

Viralva indica, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 169 (1826).

Viralva leucopareia, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 171 (1825).

Sterna delamotte (*sic*), *Vieill. Faune Franç., Ois.* p. 402, pl. 162. fig. 1 (1828).

Pelodes leucopareia, *Kaup, Natürl. Syst.* p. 107 (1829).

Sterna leucoptera [*lapsus* for "*S. leucopareia*"], *Lesson, Traité,* p. 622 (1831: Cape Good Hope); *Buckley, Ibis,* 1874, p. 391 (Transvaal).

Hydrochelidon leucopareia, *Brehm, Vög. Deutschl.* p. 797 (1831); *Bp. Comp. List B. Eur. & N. Am.* p. 61 (1838); *Boie, Isis,* 1844, p. 184; *Macgill. Br. B.* v. p. 663 (1852); *Licht. Nomencl. Av.* p. 98 (1854); *Gould, Handb. B. Austr.* ii. p. 406 (1865); *Shelley, B. Egypt,* p. 301 (1872); *Holdsw. P. Z. S.* 1872, p. 480 (Ceylon); *Gould, B. Gt. Br.* v. pl. 77 (1873); *Walden, Tr. Z. S.* ix. p. 244 (1877: Luzon); *Ramsay, Pr. Linn. Soc. N. S. W.* i. p. 386 (1877: Gulf of Carpentaria); *A. B. Meyer, Ibis,* 1879, p. 146 (Togian Is.); *Holub & Von Pelz. Beitr. Orn. Südafr.* p. 332 (1882); *Ridgway, Man. N. Am. B.* p. 47 (1887); *Taczan. Ornis,* 1888, p. 506 (Poland, not breeding); *Cory, Cat. W. Ind. B.* p. 83 (1892).

Sterna similis, *Gray, Hardw. Ill. Ind. Zool.* i. pl. 70. fig. 2 (1832) (type in Brit. Mus.); *Sykes, P. Z. S.* 1832, p. 171; *Jerdon, Madras Journ.* xii. p. 224 (1840); *Reichenb. Natat. Novit.* viii. tab. cclxxi. fig. 2261 (1850).

Sterna, sp. n.? no. 404, *Jerdon, Madr. Journ.* xii. p. 224 (1840).

Hydrochelidron hybrida, *Bp. Cat. Ucc. Eur.* p. 77 (1842); *Gray, List Anseres in Brit. Mus.* p. 180 (1844); *id. Gen. B.* iii. p. 660 (1846); *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 351 (1855); *Bp. C. R.* xlii. p. 773 (1856); *Gray, Cat. Brit. B.* p. 242 (1863); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 398 (1859); *Tristram, Ibis,* 1860, p. 82 (North African lakes); *Antin. Cat. descr. Ucc.* p. 115 (1864: Nile to lat. 13° N.); *Filippi, Viagg. Pers.* p. 352 (1865); *Blasius, J. f. O.* 1866, p. 82; *Degl. & Gerbe, Orn. Eur.* ii. p. 468 (1867); *Loche, Expl. Sc. Algér., Ois.* ii. p. 208 (1867); *Doderl. Avif. Sicil.* p. 253 (1869); *Fritsch, Vög. Eur.* p. 460, tab. 54. fig. 10 (1870); *Salvad. Faun. Ital., Ucc.* p. 283 (1871); *Swinh. P. Z. S.* 1871, p. 421 (Formosa); *Gray, Hand-l. B.* iii. p. 121 (1871); *Saunders, Ibis,* 1871, p. 399 (S. Spain); *Salvad. Ucc.*

Borneo, p. 374 (1872 : Sarawak); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1449 (1873 : Bahr el Abiad); *Walden, Tr. Z. S.* viii. p. 103 (1874 : Celebes); *Irby, Orn. Str. Gibr.* p. 211 (1875); *Saunders, P. Z. S.* 1876, p. 640 (revision); *Dresser, Ibis*, 1876, p. 416; *id. B. Eur.* viii. p. 315, pls. 588 & 589 (1877); *David & Oustal. Ois. Chine*, p. 524 (1877); *Saunders, Bull. Soc. Zool. France*, 1877, p. 201 (S. Spain); *id. P. Z. S.* 1877, p. 794, and *Voy. 'Challenger,' Birds*, ii. p. 133 (1881 : Manila); *Klunzinger, Z. Ges. Erdk. Berlin*, xiii. Hft. ii. p. 90 (1878 : Red Sea); *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 201 (1878); *Hume & Davis. Str. F.* vi. p. 491 (1878 : Tenasserim); *Davids. & Wend. op. cit.* vii. p. 93 (1878 : Deccan); *Cripps, t. c.* p. 313 (E. Bengal); *Hume, Str. F.* viii. p. 115 (1879); *Legge, B. Ceylon*, p. 996 (1880); *Wardlaw Ramsay, Tweedd. Mem.* p. 660 (1881 : Philippines); *Bocage, Orn. Angola*, p. 514 (1881 : Angola); *Giglioli, Ibis*, 1881, p. 218 (Pisa); *Scully, Ibis*, 1881, p. 594 (Gilgit); *Salvad. Orn. Papuasia &c.* iii. p. 427 (1882); *Salvin, Cat. Strickl. Coll.* p. 622 (1882); *Vorderman, Tijdschr. Nederl. Ind.* xlii. p. 126 (1883); *B. O. U. List Brit. B.* p. 184 (1883); *Oates, B. Brit. Burm.* ii. p. 419 (1883); *Seebohm, Ibis*, 1884, p. 270 (Kiukiang); *Tristr. Faun. & Flor. Palest.* p. 136 (1884); *Radde, Orn. Cauc.* p. 487 (1884); *Saund. 4th ed. Yarr. Brit. B.* iii. p. 527 (1884); *Sharpe, ed. Layard's B. S. Afr.* p. 699 (1884); *Homeyer, Ornis*, 1885, p. 81; *Torre u. Tsch. t. c.* p. 565 (Hungary, breeds); *Sharpe, Ibis*, 1886, p. 493 (Fao, resident); *Giglioli, Avif. Ital.* p. 419 (1886 : not known to breed); *Salvad. Ucc. Ital.* p. 279 (1887); *Symonds, Ibis*, 1887, p. 335 (Orange Free State); *Tait, t. c.* p. 394 (Portugal); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. 3, p. 57 (1888 : Turkestan); *Hume, Str. F.* xi. p. 350 (1888 : Manipur); *Sharpe, Ibis*, 1888, p. 204, and *Whitehead, op. cit.* 1890, p. 61 (Palawan); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 61 (1889); *Radde & Walter, Ornis*, 1889, p. 127 (breeding, Merv oasis); *Tristr. Cat. Coll. B.* p. 8 (1889); *Saunders, Man. Brit. B.* p. 621 (1889); *North, Nests & Eggs Austral. B.* pp. 353 & 402 (1889); *Everett, B. Borneo*, p. 210 (1889); *Giglioli*, 1° *Resoc. Av. Ital.* p. 634 (1889), 2° *Resoc.* p. 653 (1890), 3° *Resoc.* p. 227 (1891); *Keller, Orn. Carinth.* p. 308 (1890); *Saunders, Ibis*, 1891, p. 187 (L. Léman); *Payton, t. c.* p. 465 (Mogador); *Styan, t. c.* p. 509 (Kiukiang); *Frivaldsky, Av. Hung.* p. 181 (1891); *Madarász, Ausstell. Ungar. Vogelf.* p. 121 (1891); *De La Touche, Ibis*, 1892, p. 502 (Foochow); *Fatio & Studer, Cat. distrib. Ois. Suisse*, pp. 64–65 (1892); *Lilford, Col. Fig. Brit. B.* pt. xxviii. (1894); *Service, Ann. Scot. N. H.* 1894, p. 179 (Solway).

Hydrochelidon fluviatilis, *Gould, P. Z. S.* 1842, p. 140 (New South Wales); *Gray, Gen. B.* iii. p. 660 (1846); *Gould, B. Australia*, vii. pl. 31 (1848); *Sturt, Exp. Centr. Austr.* ii. App. p. 58 (1849); *Reichenb. Vög. Neuholl.* p. 347 (1850); *Licht. Nomencl. Av.* p. 98 (1854); *Bp. C. R.* xlii. p. 773 (1856); *Pelz. Reis. Novara, Vög.* p. 155 (1865); *Gray, Hand-list*, iii. p. 122, no. 11075 (1871); *Ramsay, P. Z. S.* 1877, p. 348 (Queensland).

The Whiskered Tern, *Yarr. Brit. B.* iii. p. 404 (1843).

Hydrocecropis delamotta (*sic*), *Boie, Isis*, 1844, p. 179.

Hydrocecropis similis, *Boie, Isis*, 1844, p. 178.

Hydrocecropis leucogenys, *Boie, Isis*, 1844, p. 179.

Sternula delamotti, *Boie, Isis*, 1844, p. 183 ("Cape Bonin, West Africa").

Sternula javanica, *Boie, Isis*, 1844, p. 183.

Hydrochelidon marginata, *Blyth, J. A. S. Beng.* xv. p. 373 (1846: Hoogly).
Hydrochelidon javanica, *Gray, Gen. B.* iii. p. 660 (1846).
Hydrochelidon similis, *Gray, Gen. B.* iii. p. 660 (1846).
Hydrochelidon indica, *Gray, Gen. B.* iii. p. 660 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 290 (1849); *Bp. C. R.* xlii. p. 773 (1856); *Irby, Ibis*, 1861, p. 246 (Oude & Kumaon); *Gray, Cat. M. etc. Nepal pres. Hodgs.* p. 78 (1863); *Swinh. P. Z. S.* 1863, p. 328 (Formosa) [not then known from China]; *Jerdon, B. Ind.* iii. p. 837 (1864); *Gray, Hand-l. B.* iii. p. 121 (1871); *Hume & Henders. Lahore to Yark.* p. 301 (1873: Kashmir); *Adam, Str. F.* ii. p. 439 (1874: Chota Nagpur); *Hume, Nests & Eggs Ind. B.* p. 648 (1875); *Blyth & Wald. B. Burm.* p. 163 (1875); *Butler, Str. F.* iv. p. 32 (1876: N. Guzerat); *V. Ball, Str. F.* vii. p. 233 (1879); *Prjev. in Rowley's Orn. Misc.* iii. p. 145 (1878: breeds in Hoang-ho Valley, Tsaidemin Nor); *Marshall, Ibis*, 1884, p. 425 (Chamba).
Hydrochelidon meridionalis, *Brehm, Vogelf.* p. 351 (1855).
Hydrochelidon leucogenys, *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 350 (1855).
Hydrochelidon nilotica, *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 351 (1855).
Hydrochelidon delalandii, *Bp. Compt. Rend.* xlii. p. 773 (1856)*; *Gray, Hand-list*, iii. p. 122 (1871).
Sterna innotata, *Beavan, Ibis*, 1868, p. 404 (imm.); *Gray, Hand-list*, iii. p. 119, no. 11043 (1871).
Hydrochelidon javanica, *Gray, Hand-list*, iii. p. 122, no. 11073 (1871).
Pelodes hybrida, *Gurney, Andersson's B. of Damara-land*, p. 362 (1872); *Olphe-Gall. Contr. Faun. Orn. Eur. Occid.* fasc. xi. p. 41 (1886); *Heine & Reichen. Nomencl. Mus. Hein.* p. 356 (1890).
Hydrochelidon leucopareius, *Severtz. Turkest. Jevotn.* p. 70 (1873).
Sterna melanogastra, *Salvad. Ucc. Borneo*, p. 377 (1874); *O. St. John, Ibis*, 1889, p. 180 (Quetta); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 207 (1884: Java); *id. op. cit.* xlix. p. 420 (1889: Sumatra).
Sterna macroura, *Sintenis, J. f. O.* 1877, p. 68 (Dobrudscha, "floating nests").
Hydrochelidon nigra, *Biddulph, Ibis*, 1881, p. 102 (Gilgit) [cf. *Scully, t. c.* p. 594].
Pelodes indica, *Heine & Reichen. Nomencl. Mus. Hein.* p. 356 (1890).
Pelodes javanica, *iid. loc. cit.*

Adult male in breeding-plumage. Forehead, crown, and nape deep black; from the gape to the nape a conspicuous white streak; upper parts slate-grey, darker on the primaries, except when these are new and frosted; shafts white; inner webs of outer pairs of primaries white on the upper and greater part of the inner webs; upper tail-coverts grey; tail-feathers grey, with white outer webs to the outside pair; chin white or very pale grey; throat grey, darkening on the lower part; breast dark slate-grey, which deepens into black on the abdomen and flanks; vent and under tail-coverts white; under wing-coverts white; axillaries white with a faint tinge of grey: bill blood-red; feet vermilion (drying to orange-

* Type examined.

colour); webs deeply indented, but less so than in *H. leucoptera*. Total length 11 inches, culmen 1·4, wing 9·25–9·5, tail 3·8, tarsus 0·9, middle toe with claw 1·15.

Indian birds, which are probably almost sedentary, are slightly smaller in size. Some of the birds resident in South Africa are of a distinctly darker hue both above and below than Northern examples; Australian specimens, on the other hand, are inclined to be paler.

Adult female. Similar to the male, or a trifle paler in general tint.

Adult in winter plumage. Upper parts of a paler grey than in the breeding-season; forehead white; crown and nape streaked and mottled with black; underparts entirely white; bill and feet reddish brown.

Young in first plumage. Crown and nape blackish brown, mantle mottled with brown and with warm cinnamon-brown edges to the inner secondaries; tail slightly mottled and edged with ash-brown; the rest like the adult in winter. By December the brown markings are considerably diminished.

Nestling. Down at the base of the bill black, forehead ruddy fawn-colour; upper parts paler fawn, mottled and streaked with black; underparts white, except the throat, which is sooty black for a few days.

Hab. South-western, Central, and Southern Europe in summer, and to about 55° N. lat. on migration; eastward throughout temperate and warmer Asia to China; southwards, by Malayasia to Australia, as far as 35° S. lat.; throughout Africa; Barbados once.

a. Pull. sk.	Camargue, S. France, July (*Rousillon*).	H. Saunders Coll.
b. ♂ ad. sk.	Andalucia, S.W. Spain, May 10 (*L. H. L. I.*).	Col. L. H. L. Irby [P.].
c. ♂ ad. sk.	Andalucia, S.W. Spain, June 6 (*H. S.*).	H. Saunders Coll.
d, e. Ad. et juv. sk.	Andalucia, S.W. Spain, July (*F. W. Forrester*).	H. Saunders Coll.
f. Ad.; *g, h.* Juv. sk.	Valencia, E. Spain, July 26.	H. Saunders Coll.
i. ♂ ad. sk.	Lower Volga, May (*H. F. Möschler*).	Gould Coll.
k. Pull. sk.	Astrachan, July (*H. F. Möschler*).	Gould Coll.
l, m. Pull. st.	Algiers.	Purchased.
n. Ad. sk.	Marocco.	Tweeddale Coll.
o, p. ♂ ♀ ad.; *q, r.* Imm. sk.	Lower Egypt (*G. E. Shelley*).	Shelley Coll.
s. Ad. sk.	Lower Egypt (*G. E. Shelley*).	H. Saunders Coll.
t. Ad. st.	White Nile.	F. Galton, Esq. [P.].
u. Ad. sk.	White Nile.	
v. Imm. sk.	Lake Ngami (*C. J. Andersson*).	H. Saunders Coll.
w. Ad. sk.	Kroonstad, Orange Free State.	J. H. Gurney Coll.
x. ♂ ad. sk.	Newcastle, Natal, Dec. 6.	Shelley Coll.
y. Ad. sk.; *z.* Ad. st.	Cape of Good Hope.	Sir A. Smith [P.].

a'–*d'*. Ad.; *e'*, *f'*. Juv. sk.	Fao, Persian Gulf, Aug., Sept.	W. D. Cumming, Esq. [P.].
g'. Juv. sk.	Cabul, Oct. 29, 1834 (*Griffith*).	India Museum.
h'. ♀ ad. sk.	Quetta, May 22 (*Sir O. St. John*).	Hume Coll.
i'. ♀ ad. sk.	Mehur, Upper Sind, Jan. 18 (*A. O. H.*).	Hume Coll.
k'. ♂ ad. sk.	Eastern Narra, Sind (*S. Doig*).	Hume Coll.
l'. Juv. sk.	Cutch, Nov. 6.	Hume Coll.
m', *n'*. ♂ ♀ ad.; *o'*, *p'*. ♀ imm. sk.	Sambhur Lake, Rajpootana, April (*R. M. Adam*).	Hume Coll.
q', *r'*. Ad. sk.	Cashmere (*Dr. Bellew*).	India Museum.
s', *t'*, *u'*. Ad. sk.	Cashmere.	Capt. Pinwill [P.].
v', *w'*. Ad. sk.	Woolar Lake, Cashmere (*Dr. F. Stoliczka*; *Forsyth Exp.*).	India Museum [P.].
x'. Ad. sk.	Woolar Lake, Cashmere (*Col. E. Delmé Radcliffe*).	H. Saunders Coll.
y', *z'*. Ad. sk.	Dul Lake, Cashmere, June.	Hume Coll.
a''. ♀ ad. sk.	Gilgit, April 22.	Col. Biddulph [P.].
b''. Juv. sk.	Gilgit, Sept. 11.	Col. Biddulph [P.].
c''. Ad. sk.	[Little?] "Tibet."	Tweeddale Coll.
d''. Ad. sk.	Kumaon.	Hume Coll.
e''. Juv. sk.	Naini Tal.	Hume Coll.
f''. ♂ imm. sk.	Gurgaon, Feb. (*A. O. H.*).	Hume Coll.
g''. ♂ ad. sk.	Mynpuri, Futtehgurh, Aug. 31 (*A. Anderson*).	Hume Coll.
h''. ♀ ad. sk.	Mynpuri, Futtehgurh, July (*A. Anderson*).	H. Saunders Coll.
i''. ♀ juv. sk.	Mynpuri, Futtehgurh, 35 days old, Oct. (*A. Anderson*).	H. Saunders Coll.
k'', *l''*. Juv. sk.	Mynpuri, Futtehgurh, Sept. 20 (*A. Anderson*).	Seebohm Coll.
m'', *n''*. ♂ ♀ ad. sk.	Mynpuri, Futtehgurh, Aug. 31 (*A. Anderson*).	Seebohm Coll.
o''. Imm. sk.	Cawnpore.	India Museum [P.]. (Type of *Sterna similis*, G. & H.)
p'', *q''*. ♂ ♀ ad. sk.	Etawah, Aug. 22.	Hume Coll.
r'', *s''*. ♂ ad. sk.	Allahabad, June 8 (*J. Cockburn*).	Hume Coll.
t''. Ad. sk.	Oudh, Jan.	Hume Coll.
u''. Juv. sk.	Chunar, Nov. (*W. E. Brooks*).	Hume Coll.
v'', *w''*. Ad. et juv. sk.	Dinapore (*S. P.*).	S. Pinwill Coll.
x''. Juv. sk.	Dinapore (*S. Pinwill*).	Hume Coll.
y''–*b*^{3}. Imm. sk.	Dacca, Jan.	Hume Coll.
c^3. Juv. sk.	Comilla, Tippera.	Hume Coll.
d^3. ♀ imm. sk.	Barrackpur (*Col. J. Biddulph*).	Tweeddale Coll.
e^3, *f*^{3}. ♂, *g*^{3}, *h*^{3}. ♀ imm. sk.	Calcutta, Dec.	Hume Coll.
i^3, *k*^{3}. ♂ ♀ imm. sk.	Raipur, Central Provinces.	Hume Coll.
l^3, *m*^{3}. Juv. sk.	Madras.	Hume Coll.
n^3. ♀ ad. sk.	Colombo, Ceylon, March (*W. V. L.*).	Col. W. V. Legge [P.].

o^3. ♂ ad. sk.	N.E. Ceylon, Aug. 1 (*W. V. L.*).	R. B. Sharpe, Esq. [P.].
p^3. ♀ ad. sk.	Colombo, Ceylon, April 15 (*W. V. L.*).	H. Saunders Coll.
q^3. ♂ ad. sk.	Colombo, Ceylon, Dec. 15 (*W. V. L.*).	H. Saunders Coll.
r^3. Juv. sk.	Ceylon.	Tweeddale Coll.
s^3. ♂ imm. sk.	Hanquede, Ceylon, Dec. (*S. Chapman*).	Tweeddale Coll.
t^3. ♂ juv. sk.	Pegu, Oct. 30, (*E. W. O.*).	Oates Coll.
u^3. ♀ ad.; v^3. Imm. sk.	Lower Pegu, Oct. 7 (*E. W. O.*).	Oates Coll.
w^3, x^3. ♂ ad. sk.	Sittang river, Feb. (*W. Davison*).	Hume Coll.
y^3, z^3. ♂ ad.; a^4, b^4. ♀ ad.; c^4. ♂ juv. sk.	Thatone, Nov. 17–Dec. 25 (*W. Davison*).	Hume Coll.
d^4. ♂ juv. sk.	Kaukaryit, Hounthraw River, Tenasserim, Dec. (*C. T. B.*).	Capt. C. T. Bingham [P.].
e^4. Ad. sk.	Java. (Type of *Sterna jaranica*, Horsfield.)	India Museum.
f^4, g^4. ♂ ♀ ad.; h^4. Imm. sk.	Togian Islands (*Dr. A. B. Meyer*).	Tweeddale Coll.
i^4, k^4. ♂ ad.; l^4. ♀ ad. sk.	Togian Islands (*Dr. A. B. Meyer*).	H. Saunders Coll.
m^4. Juv. sk.	Puerto Princesa, Palawan, Sept. (*E. L. Moseley*).	Steere Exped.
n^4. ♂ ad. sk.	Sta. Cruz, Luzon, Feb. (*Dr. A. B. Meyer*).	Tweeddale Coll.
o^4. Ad. sk.	Manila, Luzon (*M. Heriot*).	Tweeddale Coll.
p^4. ♀ ad. sk.	Manila, Luzon.	H.M.S. 'Challenger' Exped.
q^4. Imm. sk.	Cochin China.	St. René [P.].
r^4. Ad. sk.	Kiu-kiang, China, Aug. 4 (*F. Styan*).	H. Saunders Coll.
s^4. ♀ juv. sk.	Foochow, China, Oct. 24 (*F. Styan*).	H. Saunders Coll.
t^4, u^4. ♂ ♀ ad. sk.	Formosa, Aug., Sept. (*R. Swinhoe*).	Seebohm Coll.
v^4. Ad. sk.	Australia.	Sir D. Cooper [P.].
w^4. Imm. sk.	Australia.	Gould Coll.
x^4, y^4. Ad. sk.	Somerset, Cape York (*Cockerell*).	Salvin-Godman Coll.
z^4, a^5. Ad. sk.	Somerset, Cape York (*Cockerell*).	Tweeddale Coll.
b^5. Ad. sk.	Queensland.	Gould Coll.
c^5. Ad.; d^5. Imm. sk.	Queensland (*Gould*).	H. Saunders Coll.
e^5. Ad. sk.	Lake Elphinstone (*Gould*).	H. Saunders Coll.
f^5. Ad. sk.	Bourke, River Darling, New South Wales (*Dr. Pecchey*).	Gould Coll.
g^5. Ad. sk.	New South Wales.	Australian Mus. [P.].
h^5. Juv. st.	Barbados.	Sir R. Schomburgk [P.].
i^5. Skeleton, ♀.	(*Warwick Coll.*).	Purchased.
k^5, l^5. Skeletons, juv.	Manila.	H.M.S. 'Challenger' Exped.
m^5. Sternum, ♂.	Algeria.	

3. Hydrochelidon nigra.

The Black Tern.

The Lesser Sea Swallow, *Albin, Nat. Hist. B.* ii. pp. 82-83, ad. & imm., pls. 89 & 90 (1740).

Rallus lariformis, *Linn. Syst. Nat.* 10th ed. i. p. 153 (1758).

L'Hirondelle de mer noire ou l'Épouvantail, *Brisson, Orn.* vi. p. 211, pl. xx. fig. (1760).

L'Hirondelle de mer à teste noire, ou le Gachet, *id. tom. cit.* p. 214.

Sterna nigra, *Linn. Syst. Nat.* 10th ed. i. p. 137 (1758); *id. Fauna Suec.* p. 56, no. 159 (1761; reedy islands near Upsala); *Brünn. Orn. Bor.* p. 46 (1764); *Linn. Syst. Nat.* i. p. 227 (1766); *P. L. S. Müller, S. N., Anhang,* p. 353, pl. xiii. fig. 3 (1773); *Gm. S. N.* i. p. 608 (1788); *Lath. Ind. Orn.* ii. p. 810 (1790); *Bechst. Naturg. Deutschl.* ii. p. 836 (1791); *Retzius, Faun. Suec.* p. 164 (1800); *Meyer & Wolf, Taschenb.* ii. p. 461 (1810); *Temm. Man. d'Orn.* p. 484 (1815); *Meisner & Schinz, Vög. Schweiz,* p. 262 (1815); *Koch, Syst. baier. Zool.* p. 367 (1816); *Leach, Syst. Cat. B. Brit. Mus.* p. 41 (1816); *Nilss. Orn. Suec.* p. 160 (1817); *Temm. Man. d'Orn.* ed. 2, p. 749 (1820); *Brehm, Beitr. Vögelk.* iii. p. 708 (1822); *id. Lehrb.* p. 695 (1824); *Licht. Verz. Doubl.* p. 82 (1823: S. France); *Werner, Atlas, Palmipèdes,* pl. 13 (1828); *Vieill. Faune Franç.* p. 400 (1828); *Fleming, Brit. An.* p. 143 (1828); *Lesson, Traité,* p. 622 (1831); *Savi, Orn. Tosc.* iii. p. 79 (1831); *Ménétr. Cat. Rais. Cauc.* p. 55 (1832); *Selby, Brit. B.* ii. p. 477, pl. xci. (1833); *Jenyns, Man. Brit. Verteb.* p. 268 (1835); *Eyton, Cat. Brit. B.* p. 55 (1836); *Gould, B. Eur.* v. pl. 422 (1837); *Dickson & Ross, P. Z. S.* 1839, p. 135 (Erzeroum); *Naum. Vög. Deutschl.* x. p. 189, pl. 256 (1840); *Schinz, Europ. F.* p. 375 (1840); *Crespon, Orn. Gard,* p. 478 (1840); *Keys. & Blas. Wirb. Eur.* pp. xcviii & 248 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 279 (1840); *Selys-Longch. F. Belg.* p. 151 (1842); *Macgill. Man. Brit. Orn.* ii. p. 233 (1842); *Bouteille, Orn. Dauphiné,* ii. p. 237 (1843); *Mühle, Orn. Griechenl.* p. 147 (1844); *Crespon, Faun. Mérid.* ii. p. 120 (1844); *Schleg. Rev. Crit.* p. cxxx (1844); *Hewits. Eggs Brit. B.* ii. p. 435, pl. 122 (1846); *Reichenb. Natat.* tab. xx. figs. 807–810 (1850); *Thomps. B. Irel.* iii. p. 304 (1851); *Kjærb. Danm. Fugle,* p. 332, tab. 40 B., *Suppl.* tab. 21 (1852); *Schl. Vog. Nederl.* p. 615, pl. 362 (1854); *Heugl. Syst. Uebers.* p. 71 (1856: Red Sea in winter); *Meyer, Br. B.* vii. p. 99, pl. 295 (1857); *Erhard, F. Cycladen,* pp. 45 & 62 (1858); *Linderm. Vög. Griechenl.* p. 181 (1860); *Powys, Ibis,* 1862, p. 356 (Corfu); *Sundev. Sv. Fogl.* pl. 48. figs. 6, 7 (1863?); *Borggr. Vogelf. Norddeutschl.* p. 145 (1869); *Heugl. in Peterm. Mitth.* p. 408 (1869); *Palmén, Finlands Foglar,* p. 579 (1873); *Durnford, Ibis,* 1874, p. 400 (Frisian Is., breeding); *Seebohm, Ibis,* 1882, p. 231 (Volga delta & Kirghiz steppes); *id. Brit. B.* iii. p. 254 (1885); *Stevenson & Southw. B. Norfolk,* iii. p. 312 (1890); *Gätke, Vogelw. Helgoland,* p. 588 (1891); *Jäckel & Blas. Vög. Bayerns,* p. 379 (1891).

Sterna nævia, *Linn. Syst. Nat.* i. p. 228 (1766) (jr.); *Bechst. Naturg. Deutschl.* ii. p. 831 (1791); *Pallas, Zoogr. Rosso-Asiat.* i. p. 337 (1811 : Volga & Caspian).

The Black Tern, *Pennant, Br. Zool.* p. 145, pl. L* 1 (1766); *id. ibid.* ed. 2, p. 430 (1788); *Lath. Gen. Syn.* iii. pt. 2, p. 366 (178); *id. Gen. Syn. Suppl.* i. p. 267 (1787); *Yarrell, Brit. B.* iii. p. 413 (1843).

Larus merulinus, *Scop. Ann. I. Hist. Nat.* p. 81 (1769).

? Larus columbinus, *Scop. Ann. I. Hist. Nat.* p. 83 (1769).
La Guifette, *Buff. Hist. Nat. Ois.* viii. p. 339 (1781); *Daubent. Pl. Enl.* ix. pl. 333 (1781).
La Guifette noire ou Épouvantail, *Buff. Hist. Nat. Ois.* viii. p. 341 (1781).
L'Épouvantail, *Daubent. Pl. Enl.* ix. pl. 924 (1781).
The Black Tern, var. A, *Lath. Gen. Syn.* iii. pt. 2, p. 367 (1785).
Sterna nubilosa, *Sparrm. Mus. Carls.* fasc. iii. no. 63, juv. (1786: Finland).
Sterna boysii, γ, *Lath. Ind. Orn.* ii. p. 806 (1790).
Sterna fissipes, *Lath.* (*nec Linn.*) *Ind. Orn.* ii. p. 810 (1790); *Bechst. Naturg. Deutschl.* ii. p. 833 (1791); *Illiger. Prodr.* p. 272 (1811); *Yarrell, Brit. B.* ed. 2, iii. p. 523 (1845); *Degl. Ois. Eur.* ii. p. 349 (1849); *Brandt in Lehmann's R. n. Buchara*, p. 330 (1852: N.E. Caspian); *Schlegel, Mus. P.-B.*, Sternæ, p. 29 (1863); *Wright, Ibis*, 1864, p. 153 (Malta); *R. Gray, B. W. Scotl.* p. 472 (1871); *Sharpe, P. Z. S.* 1871, p. 614 (Camaroons); *Harting, Handb. Br. B.* p. 76 (1872); *Blanf. East. Pers.* ii. p. 294 (1876); *Alléon, Ornis*, 1886, p. 425 (Dobrudscha); *Madarász, Ausst. Ungar. Vogelf.* p. 121 (1891).
Hydrochelidon nigra, *Boie, Isis*, 1822, p. 563; *Kaup, Natürl. Syst.* pp. 109 & 196 (1829); *Brehm, Vög. Deutschl.* p. 793 (1831); *Boie, Isis*, 1844, pp. 179 & 184; *Rüpp. Syst. Uebers.* p. 139 (1845: Arabian side of Red Sea); *Strickl. P. Z. S.* 1850, p. 221 (Kordofan); *Reichenb. Syst. Nat. Vög.* tab. iv. (1850); *id. Av. Syst. Nat., Longip.* p. v (1852); *Macgill. Br. B.* v. p. 658 (1852); *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 350 (1855); *Hartl. Orn. W.-Afr.* p. 256 (1857); *Tristr. Ibis*, 1860, p. 82 (Western Sahara only); *Holtz, J. f. O.* 1868, p. 126 (I. of Gottland, breeds); *Gould, B. Gt. Br.* v. pl. 75 (1873); *Saunders, P. Z. S.* 1876, p. 642 (revision); *Sharpe & Bouvier, Bull. Soc. Zool. Fr.* 1876, p. 314 (Banana, Congo); *Dresser, B. Eur.* viii. p. 327, pl. 592 (1876); *Saunders, Bull. Soc. Zool. France*, 1877, p. 201 (S. Spain); *Giglioli, Iconogr. Avif. Ital.* fasc. vii. pl. 392 (1880); *Bocage, Orn. Angola*, p. 513 (1881: Loango); *Salvin, Cat. Strickl. Coll.* p. 622 (1882); *Hume, Rough Notes*, vol. iii. (1883); *Tristr. Faun. & Flor. Palest.* p. 136 (1884: Syrian Coast); *Saunders, 4th ed. Yarr. Br. B.* iii. p. 516 (1884); *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 128 (1885–6: St. Petersburg); *Radde, Orn. Cauc.* p. 487 (1884); *Homeyer, Ornis*, 1885, p. 81; *Lutke, Ornis*, 1885, p. 46 (Denmark, breeds); *Torre & Tschusi, Ornis*, 1885, p. 565 (Hungary, breeds); *Albarda, Ornis*, 1885, p. 631 (Holland, breeds); *Winge, Ornis*, 1886, p. 592 (Denmark); *Olphe-Gall. Faun. Orn. Eur. Occid.* fasc. xi. p. 49 (1886); *Giglioli, Avif. Ital.* p. 420 (1886); *Salvad. Ucc. Ital.* p. 280 (1887); *Booth, Rough Notes*, iii. (1887); *Feilden, Zool.* 1887, p. 73 (Faeroes); *Hartert, MT. Orn. Ver. Wien*, 1887 (East Prussia); *Tait, Ibis*, 1887, p. 394 (Portugal); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. 3, p. 57 (1888: Western Turkestan); *Taczan. Ornis*, 1888, p. 506 (Poland); *Guillemard, Ibis*, 1889, p. 219, and *Lilford, tom. cit.* p. 348 (Cyprus); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 60 (1889); *Sousa, J. Sc. Lisboa*, (2) no. 2 (1889), p. 1 (Angola, first time so far south); *Riesenth. Wasservög. Mittel-europ.* p. 146 (1889); *Tristr. Cat. Coll.* p. 8 (1889); *Saunders, Man. Br. B.* p. 617 (1889); *Giglioli*, i. *Resoc. Avif. Ital.* p. 636 (1889); *id.* ii. *Resoc.* p. 653 (1890); *id.* iii. *Resoc.* p. 512 (1891); *Keller, Orn. Carinth.* p. 308 (1890); *Heine & Reichen. Nomencl. Mus. Hein.* p. 356 (1890); *Saunders, Ibis*, 1891, p. 187 (Lake Léman); *Payton, Ibis*, 1891, p. 465 (Mogador);

Rendall, Ibis, 1892, p. 230 (Gambia); *Büttikofer, C. R.* ii. *Cong Orn. Intern.* ii. p. 175 (1892: Liberia); *Fatio & Studer, Cat. distrib. Ois. Suisse*, pp. 64–65 (1892); *Lilford, Col. Fig. Brit. B.* pt. xxviii. (1894); *Collett, Norges Fuglef., Nyt Mag. f. Naturv.* Bd. xxxv. p. 318 (1894).

Viralva nigra, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 167 (1826).

Hydrochelidon obscura, *Brehm, Vög. Deutschl.* p. 795 (1831).

Hydrochelidon nigricans, *Brehm, Vög. Deutschl.* p. 795 (1831).

Hydrochelidon nigrum, *Bp. Comp. List B. Eur. & N. Am.* p. 61 (1838).

Hydrochelidon fissipes, *Bp. Cat. Ucc. Eur.* p. 77 (1842); *Gray, Gen. B.* iii. p. 660 (1846); *Licht. Nomencl. Av.* p. 98 (1854); *Bp. C. R.* xlii. p. 773 (1856); *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 399 (1859); *Salvin, Ibis*, 1859, p. 365 (Lake Djendeli); *Gray, Cat. Brit. B.* p. 243 (1863); *Salvad. Ucc. Sard.* p. 123 (1864); *Antinori, Cat. Descr. Ucc.* p. 115 (1864: Lower Egypt); *Filippi, Viagg. Pers.* p. 352 (1865: Enzeli); *Blasius, J. f. O.* 1866, p. 82; *Degl. & Gerbe, Orn. Eur.* ii. p. 465 (1867); *Loche, Expl. Sc. Algér., Ois.* ii. p. 205 (1867); *Doderl. Avif. Mod. e Sicil.* p. 243 (1869); *Drake, Ibis*, 1869, p. 154 (Morocco); *Droste, Vogelw. Borkum*, p. 335 (1869); *Fritsch, Vög. Eur.* p. 462, tab. 54. fig. 6 (1870); *Sharpe, Ibis*, 1870, p. 488 (Fantee); *Finsch, Tr. Z. S.* vii. p. 305 (1870: Zoulla); *Salvad. Faun. Ital., Ucc.* p. 284 (1871); *Saund. Ibis*, 1871, p. 399 (Spain); *Shelley, B. Egypt*, p. 300 (1872); *A. B. Brooke, Ibis*, 1873, p. 346 (Sardinia); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1445 (1873); *Antin. & Salvad. Viagg. Bogos*, p. 154 (1873: Anseba, 4000 ft.); *Irby, Orn. Str. Gibr.* p. 212 (1875); *Menzbier, Bull. Mosc.* lviii. p. 136 (1883: Volga to Oka, breeds); *Frivaldsky, Av. Hung.* p. 180 (1891).

Hydrochelidon pallida, *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 350 (1855).

Hydrochelidon obscura, *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 350 (1855).

Sterna minuta, *Feilden, Zool.* 1886, p. 487 (error; corrected, *id. op. cit.* 1887, p. 73: Faeroes).

Adult male in nuptial plumage. Head and neck black; mantle, tail and wings slate-grey, inclining to white on the edge of the carpal joint; shafts of primaries dull white, and the webs on each side dark slate-grey, except when new and frosted; breast and abdomen dark lead-colour; vent and under tail-coverts white; under wing-coverts and axillaries pale grey: bill black; feet reddish brown, smaller and with less indented webs than in the two preceding species. Total length 9·6 inches, culmen 1·25, wing 8·5, tail 4, tarsus 0·65, middle toe with claw 0·85.

Female. Similar to the male, with slightly paler tints.

Adult in winter. After the moult, which commences in the latter part of July, the forehead is white, the crown and nape are mottled with dull black, the mantle and tail are paler, the underparts white, and the axillaries the palest grey; feet brown.

Young. Similar to the above, but the crown and nape browner; the mantle considerably, and the tail slightly, mottled with brown; a pink tinge sometimes on the underparts; feet clay-brown.

Nestling. Fawn-colour, broadly marked with black on the upper parts; beneath pale clove-brown, darker on the throat.

Hab. Europe, breeding south of about 60° N. lat.; once in the Faeroes; Africa in winter, to Loango on the west and Abyssinia on the east; not traceable in Asia beyond Western Turkestan.

a. ♂ juv. sk.	Yarmouth, Norfolk, Sept. 12.	H. Saunders Coll.
b, *c*. Ad. st.	River Thames.	Mr. J. Baker [C.].
d. Juv. st.	Cookham, Berkshire.	Mr. W. Briggs [P.].
e. Ad. sk.	Cookham, Aug. 29.	R. B. Sharpe, Esq. [P.].
f. Ad. sk.	Kent.	Col. Montagu [C.].
g. Juv. sk.	Pagham, Sussex, Sept. 4.	Dr. A. Günther [P.].
h. ♂ juv. sk.	Mudeford Harb., Hants, Sept. (*R. B. S.*).	R. B. Sharpe, Esq. [P.].
i. Juv. sk.	Nalsoe, Faeroes, Sept. 1866 (*H. C. Müller*).	Col. H. W. Feilden [P.].
k. ♂ ad. sk.	Belgium.	Hume Coll.
l, *m*. ♂ ad. sk.	Vaalkenswaard, Holland, May 1853 (*J. Baker*).	Salvin-Godman Coll.
n. Ad. sk.	Pomerania, June.	Seebohm Coll.
o, *p*. Pull. sk.	Galizia, Austria, July.	H. Saunders Coll.
q, *r*. ♂; *s*–*v*. ♀ ad. sk.	Hungary, April, June, July.	Hungarian National Museum [P.].
w, *x*. ♂ ad. sk.	Neusiedler Lake, May (*R. B. S.*).	R. B. Sharpe, Esq. [P.].
y–*b'*. Pull. sk.	Blanc, Indre, France, June (*Réné Martin*).	H. Saunders Coll.
c'. Ad. st.	Italy (*J. Aryent*).	Purchased.
d'. ♀ ad. sk.	Palermo, Sicily, May (*Prof. Doderlein*).	H. Saunders Coll.
e'. ♂ ad. sk.	Malta, Aug. 6 (*C. A. Wright*).	H. Saunders Coll.
f', *g'*, *h'*. ♂, *i'*, *k'*, *l'*. ♀ ad.; *m'*,*n'*. ♂ juv. sk.	Valencia, Spain, July, Aug.	H. Saunders Coll.
o'. ♀ ad.; *p'*. ♂ juv. sk.	Malaga, May & Aug. 2.	H. Saunders Coll.
q'. Juv. sk.	Andalucia, Aug. (*F. W. Forrester*).	H. Saunders Coll.
r'. ♀ ad. sk.	Seville, May 17.	H. Saunders Coll.
s'. Juv. sk.	Xanthus, Asia Minor.	Sir Chas. Fellowes [P.].
t'. Juv. sk.	Tunis, N. Africa.	L. Fraser [C.].
u'. Juv. sk.	Victoria River, Camaroons.	H. Saunders Coll.
v'. Ad. sk.	Fantee (*H. T. Ussher*).	Shelley Coll.
w'. Ad. skel.	Lake of Constance (Sept.).	Dr. Günther's Coll.
x'. Ad. skel.	England.	Purchased.

4. Hydrochelidon surinamensis.

L'Hirondelle de Mer: la grande espèce, *Fermin, Descr. Surinam*, ii. p. 187 (1769: chiefly this species).

Surinam Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 352 (1785).

Sterna surinamensis, *Gm. S. N.* i. p. 604 (1788); *Lath. Ind. Orn.* ii. p. 804 (1790).

Sterna plumbea, *Wilson, Amer. Orn.* vii. p. 83, pl. 60. fig. 3 (1813); *Jard. ed. Wilson's Am. Orn.* ii. p. 374 (1832).

Sterna nigra, *J. Sabine, App. Franklin's Journ.* p. 694 (1823); *Bp. Obs. Nomencl. Wilson*, no. 244 (1826); *id. Ann. Lyc. N. Y.* ii. p. 355 (1828); *Sw. Faun. Bor.-Am., Birds*, p. 415 (1831); *Nuttall, Man.*

Orn. ii. p. 282 (1834); *Audub. Orn. Biogr.* iii. p. 535 (1835); *id. op. cit.* v. p. 642 (1839); *id. Syn.* p. 320 (1839); *id. B. Am.* 8vo ed. vii. p. 116, pl. 436 (1844); *Giraud, B. Long Isl.* p. 352 (1844); *Lembeye, Av. Cuba,* p. 124 (1850); *A. & E. Newton, Handb. Jamaica,* p. 117 (1881).

Anoüs plumbea, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 142 (1825) (*ex Wilson*).

Hydrochelidon nigrum, *Bp. Comp. List B. Eur. & N. Am.* p. 61 (1838); *Gosse, B. Jamaica,* p. 437 (1837).

Sterna exilis, *Tschudi, Wiegm. Arch.* 1843, i. p. 389, no. 19; *Tschudi & Cab. Faun. Peruan., Aves,* p. 53 & p. 306 (type, in winter plumage, in Neuchâtel Mus. examined, *H. S.*).

Hydrochelidon plumbea, *Boie, Isis,* 1844, p. 184; *Gray, Gen. B.* iii. p. 660 (1846); *Baird, Cass. & Lawr. B. N. Am.* p. 864 (1858): *Lawr. Ann. Lyc. N. Y.* vii. p. 479 (1862: New Granada); *Blakiston, Ibis,* 1862, p. 10 (Saskatchewan); *Sclater, P. Z. S.* 1864, p. 179 (Mexico City); *Scl. & Salv. t. c.* p. 373 (Brit. Honduras); *Pelz. Reis. Novara, Vög.* p. 155 (1865: Chili); *Dresser, Ibis,* 1866, p. 45 (Texas); *Snow, B. Kansas,* p. 12 (1873).

Hydrochelidon surinamensis, *Bp. C. R.* xlii. p. 773 (1856); *Gray, Hand-l. B.* iii. p. 122 (1871).

Sterna frenata, *Salvin, Ibis,* 1860, p. 278; cf. *Ibis,* 1866, p. 205 (Coban).

Hydrochelidon fissipes, *Coues, Pr. Phil. Ac.* 1862, p. 554; *id. Ibis,* 1864, p. 391 (British Honduras); *Lawr. Ann. Lyc. N. Y.* viii. p. 299 (1865); *Salvin, Ibis,* 1866, p. 205 (Coban); *Dall & Bann. Tr. Chic. Acad.* i. p. 307 (1869: Alaska); *Scl. & Salv. P. Z. S.* 1871, p. 573 (revision); *Lawr. Mem. Boston Soc. N. H.* ii. p. 318 (1874: Mazatlan); *Hensh. Ann. Lyc. N. Y.* xi. p. 13 (1874: Utah); *Gundl. Orn. Cuba,* p. 310 (1876); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 52 (1877: Tehuantepec); *Zeledon, Cat. Av. Costa Rica,* p. 36 (1882).

Sterna fissipes, *Ridgw. Ann. Lyc. N. Y.* x. p. 392 (1874: Illinois).

Hydrochelidon lariformis, *Coues, B. N.-West,* p. 704 (1874); *Hensh. Rep. Zool. Expl.* 100*th Merid.* p. 487 (1875); *Streets, Bull. U.S. Nat. Mus.* vii. p. 27 (1877: Sinaloa, Mexico); *Ridgw. Rep. Surv.* 40*th Par.* p. 640 (1877: Sacramento, Cal.); *Coues, Bull. U.S. Geol. Surv.* iv. p. 656 (1878: Pembina); *id. Check-list N. Amer. B.* p. 124 (1882); *id. Key N. Amer. B.* 2nd ed. p. 770 (1884).

"Sterna cæsia, *Linn.*," *Gundlach, J. f. O.* 1875, p. 393 [? *error for* S. nævia].

Hydrochelidon nigra (pt.), *Saunders, P. Z. S.* 1876, p. 642 (revision).

Hydrochelidon lariformis surinamensis, *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881).

Hydrochelidon nigra surinamensis, *A. O. U. Check-list N. Amer. B.* p. 96 (1882); *Baird, Brew. & Ridgw. Water-Birds N. Amer.* ii. p. 318 (1884); *Ferrari-Perez, Pr. U.S. Nat. Mus.* ix. p. 179 (1886: Puebla); *Ridgw. Man. N. Amer. B.* p. 47 (1887); *Nelson, Rep. Alaska,* p. 60 (1887); *Cory, B. West Indies,* p. 280 (1889); *Rhoads, Pr. Ac. Philad.* 1892, p. 101 (Corpus Christi, Texas); *Cory, Cat. West Ind. B.* p. 83 (1892).

Pelodes surinamensis, *Heine & Reichen. Nomencl. Mus. Hein.* p. 356 (1890: Mexico).

Adult in summer. Similar to *H. nigra*, but darker on the upper parts, with a great deal of pure white on the carpal joints; underparts very much blacker; feet nearly black. Average dimensions

smaller. Total length 9·25 inches, culmen 1·2, wing 8·25, tail 3·75, tarsus 0·6, middle toe with claw 0·85.

In winter plumage the mantle is distinctly of a more bluish grey than in the Old World bird; *the young* in first plumage are also darker.

Nestling. Upper parts umber-brown, sparingly mottled with blackish brown; forehead and underparts clove-brown, darker on the throat. The differences between the light warm colour of the European and the dark uncontrasted tint of the American nestlings are very remarkable.

Hab. Temperate North America, from the Fur Countries downwards in summer; southward to Honduras, Guiana, Peru, and Chili in winter.

a, b. Juv. sk.	New York State, Aug. (*Henshaw Coll.*).	Salvin-Godman Coll.
c. Pull. sk.	St. Clair Flats, Michigan (*W. H. Collins*).	Salvin-Godman Coll.
d. Ad. sk.	Indiana, May 7 (*Hensh. Coll.*).	Salvin-Godman Coll.
e, f, g. ♂ ♀ ad. sk.	Grass Lake, Illinois, June (*Hensh. Coll.*).	Salvin-Godman Coll.
h, i. ♀ ad. sk.	Riverdale, Illinois, July (*H. W. Henshaw*).	Salvin-Godman Coll.
k. ♂ ad. sk.	Waukegan, Ill., June (*Hensh. Coll.*).	Salvin-Godman Coll.
l. ♂ ad. sk.	Koshkonong Lake, Wisconsin, July.	Dr. T. M. Brewer [P.].
m. ♀ ad. sk.	Minnesota, off nest, June (*A. Stark*).	H. Saunders Coll.
n. ♂; *o.* ♀ ad. sk.	Pembina, Dakota, June (*Dr. Elliott Coues*).	Salvin-Godman and H. Saunders Colls.
p. Ad. sk.	49th Parallel, May 27, 1874.	N. Amer. Boundary Commission [C.].
q. Ad. sk.	Centralia, Kansas, May.	H. Saunders Coll.
r, s. ♂; *t.* ♀ ad. sk.	Washoe Lake, Nevada, May, Sept. (*H. W. H.*).	Salvin-Godman Coll.
u. Ad. sk.	Arizona, Aug. (*H. W. H.*).	Salvin-Godman Coll.
v. Pull. sk.	Cold Springs, California, July (*H. W. H.*).	Salvin-Godman Coll.
w, x. Ad. et imm. sk.	San Jacinto Lake, Cal., Aug. (*H. W. H.*).	Salvin-Godman Coll.
y. Ad. sk.	California (*Hepburn*).	H. Saunders Coll.
z. ♂ ad. sk.	Cape Cañaveral, Florida, Aug. (*Hensh. Coll.*).	Salvin-Godman Coll.
a'–h'. ♂ ♀ ad. et juv. sk.	Corpus Christi, Texas, May–June (ad.), Nov. (juv.) (*F. B. Armstrong*).	Salvin-Godman Coll.
i'–m'. ♀ ad. sk.	Brownsville, Texas, May (*F. B. A.*).	Salvin-Godman Coll.
n'. ♂ ad. sk.	Matamoras, N.E. Mexico, Aug. 11, 1863 (*H. E. D.*).	Salvin-Godman Coll.
o'. Imm. sk.	Laguna Verde, Vera Cruz, Mexico, Sept. (*M. Trujillo*).	Salvin-Godman Coll.
p'. ♂ imm. sk.	Putla, Vera Cruz, Oct. (*Boucard*).	H. Saunders Coll.

q'. Juv. sk.	Mazatlan, N.-West Mexico (*Grayson*).	H. Saunders Coll.
r'. Juv. sk.	Acapulco, Sept. 1888 (*Mrs. H. H. Smith*).	Salvin-Godman Coll.
s', *t'*. ♀ ad.; *u'*–*w'*. ♂ ♀ imm. sk.	Cay Dolores Channel, Brit. Honduras, May 17, 1862 (*O. Salvin*).	Salvin-Godman Coll.
x'. Juv. sk.	Coban, Vera Paz, Nov. (*O. S.*).	Salvin-Godman Coll.
y'. Imm. sk.	Callao Bay, 12° S., Peru (*R. R. Jump*).	H. Saunders Coll.

2. PHAËTHUSA.

Type.

Phaëthusa, *Wagler, Isis*, 1832, p. 1224 ..... P. magnirostris.
Thalassites, *Swains. Classif. B.* ii. p. 373 (1837).... P. magnirostris.

Range. South America, from the Orinoco to the La Plata, and also on the Pacific coast.

1. Phaëthusa magnirostris.

? Simple Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 355 (1785: Cayenne); *id. Gen. Hist.* x. p. 111 (1824).

? Sterna simplex, *Gm. S. N.* i. p. 606 (1788); *Lath. Ind. Orn.* ii. p. 806 (1790); *Gray, Gen. B.* iii. p. 659 (1846).

? Hati cogote obscuro, *Azara, Apunt.* iii. p. 372 (1802) [on which is based *S. chloropoda*, Vieill.].

Hati cabeza negra, *Azara, Apunt.* iii. p. 373 (1802).

? Hati pico corto, *Azara, Apunt.* iii. p. 376 (1802) [on which is based *S. brevirostris*, Vieill.; a young bird].

? Sterna chloropoda, *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 171 (1819); *id. Enc. Méthod.* i. p. 349 (1820); *Gray, Gen. B.* iii. p. 659 (1846); *Hartl. Ind. Azara*, p. 26 (1847).

? Sterna brevirostris, *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 166 (1819) [based on Azara's "Hati pico corto"]; *Vieill. Enc. Méth.* i. p. 347 (1820).

Sterna magnirostris, *Licht. Verz. Doubl.* p. 81 (1823) [type in Berlin Mus. examined, *H. S.*]; *Spix, Av. Bras.* ii. p. 81, tav. civ. (1825); *Neuwied, Beitr. Naturg. Bras.* iv. p. 861 (1833); *Tsch. & Cab. Faun. Peruan., Aves*, pp. 53, 305 (1846); *Hartl. Ind. Azara*, p. 26 (1847); *Cab. in Schomb. Reis. Guiana*, iii. p. 461 (1848); *Reichenb. Natat.* tab. xviii. fig. 257 (1848); *Burm. Th. Bras.* iii. pp. 450, 451 (1856); *id. Reise La Plata*, ii. p. 519 (1861); *Schl. Mus. P.-Bas*, Sternæ, p. 12 (1863); *Taylor, Ibis*, 1864, p. 96 (Orinoco); *Scl. & Salv. P. Z. S.* 1867, pp. 593, 979 (Mexiana, Lower Amazons); *Gray, Hand-l. B.* iii. p. 120 (1871); *Pelz. Orn. Bras.* pp. 324, 461 (1871); *Layard, Ibis*, 1873, p. 396 (Pará); *Saunders, P. Z. S.* 1876, p. 643 (revision); *Durnf. Ibis*, 1880, p. 412 (Rosario); *Tacz. Orn. Pérou*, iii. p. 438 (1886); *MacFarl. Ibis*, 1887, p. 209 (Guayaquil).

? Viralva simplex, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 172 (1825).

"Sterna speculifera, *Temm.*," *Less. Traité*, p. 622 (1831: Brazil) [cf. *Puch. Rev. Zool.* ii. (1850) p. 544]; *Gray, Gen. B.* iii. p. 659 (1846).

Phaëthusa magnirostris, *Wagler, Isis*, 1832, p. 1224; *Gray, List Gen.* p. 79 (1840), p. 100 (1841); *id. Gen. B.* iii. p. 659 (1846); *Reichenb. Syst. Nat.* tab. iv. (1850) *id. Av. Syst. Nat., Longip.*

p. v (1852); *Licht. Nomencl. Av.* p. 98 (1854); *Bp. C. R.* xlii. p. 772 (1856); *Scl. & Salv. P. Z. S.* 1871, p. 567, 1873, p. 310 (Eastern Peru); *iid. Nomencl. Av. Neotrop.* p. 147 (1873); *Berlepsch, J. f. O.* 1874, p. 278 (Santa Catharina); *Durnf. Ibis*, 1877, p. 200 (Buenos Aires); *Taczan. & Berlepsch, P. Z. S.* 1885, p. 112 (Riobamba, Ecuador); *Scl. & Huds. Argent. Orn.* ii. p. 194 (1889); *Heine & Reichen. Nomencl. Mus. Hein.* p. 355 (1890); *Scl. P. Z. S.* 1891, p. 301 (alive at Zool. Gardens).

Thalassites magnirostris, *Sw. Classif. B.* ii. p. 372 (1837); *Scl. & Salv. P. Z. S.* 1866, p. 200 (Lower Ucayali).

Thalasseus chloripoda (*Vieill.*), *Boie, Isis*, 1844, p. 182.

Sylochelidon speculifera, *Boie, Isis*, 1844, p. 186.

Sylochelidon magnirostris, *Gray, List Anseres in Brit. Mus.* p. 175 (1844); *Blas. J. f. O.* 1866, p. 82.

Sterna albifrons, *Cuv. MSS. in Mus. Paris*; *Pucheran, Rev. Zool.* ii. p. 344 (1850)*.

Sterna chloripoda, *Léot. Ois. Trinid.* p. 537 (1866).

Adult. Head and nape glossy black, with a very narrow line of white at the base of the bill; nape and sides of neck pale grey; mantle and tail slate-grey; carpal coverts, upper wing-coverts, and the greater part of secondaries white; primaries dark brown, with whitish "wedges" to the inner webs and narrow white borders to the inner margins (increasing on the upper primaries); shafts blackish; inner secondaries broadly edged with white and grey, with a brownish spot above; lores, cheeks, and underparts pure white. In less mature birds the white on the forehead is a little wider; the mantle has a browner tinge; the brown spots on the inner secondaries are more extensive, and the lores are slightly flecked with black; but there does not seem to be any distinct winter or "eclipse" stage beyond a slight mottling of the crown. The sexes appear to be alike in plumage. Bill chrome-yellow, slightly greenish at the base of the lower mandible; feet olive, the webs yellow. Total length 14·75 inches, culmen 2·8, wing 11·5, tail 4·8, the fork only 0·6 deep, tarsus 1, middle toe and claw 1·15.

Immature. Crown slate-grey; a blackish patch from the back of the eye to the nape, which is also blackish; bill with a greener tinge; otherwise like the adult.

Young. Crown at first pale brown, streaked with umber, afterwards grey; upper parts greyish, mottled with brown and drab; upper tail-coverts and tail slightly barred and tipped with dull white or drab.

Hab. Trinidad and the Orinoco to the Paraná and the La Plata, and on the large rivers of tropical South America up to the foot of the Andes; also on the estuarine coasts of Peru and Ecuador. Eggs deposited on sand-banks.

a. Ad. st.	"South America."	Zool. Soc. Mus. [P.].
b. Ad. sk.	South America.	Gould Coll.
c. Imm. sk.	British Guiana.	Sir R. Schomburgk [P.].

* Type examined.

d. ♂ ad.; *e.* ♀ juv. sk.	River Rupuruni, British Guiana, Feb. 7 (*H. W.*).	Salvin-Godman Coll.
f. ♀ ad. sk.	Ourumee, British Guiana, Dec. 22 (*H. W.*).	Salvin-Godman Coll.
g. Imm. sk.	Surinam (*Dr. Kirke*).	H. Saunders Coll.
h. Juv. sk.	Island of Mexiana, mouth of the Amazons, Dec. 1848 (*A. R. Wallace*).	Salvin-Godman Coll.
i. Ad. sk.	Brazil (*Natterer*).	Salvin-Godman Coll.
k. Imm. sk.	South Brazil (from Berlin Mus.).	H. Saunders Coll.
l. Ad. sk.	Paraná River (*Rogers*).	H. Saunders Coll.
m. Ad. sk.	Paraná River (*Rogers*).	Salvin-Godman Coll.
n. Ad. sk.	Paraná River, April.	H. Durnford, Esq. [P.].
o. ♂ ad. sk.	Upper Ucayali, E. Peru, May 31 (*E. Bartlett*).	H. Saunders Coll.
p. ♂ ad.; *q.* ♀ imm. sk.	Pebas, Amazons, E. Peru, April 31 (*J. Hauxwell*).	Salvin-Godman Coll.
r, s. Imm. sk.	Guayaquil River, Ecuador, June (*Comm. MacFarlane, R.N.*).	H. Saunders Coll.

3. GELOCHELIDON.

	Type.
Gelochelidon, *Brehm, Vög. Deutschl.* p. 774 (1831) ..	G. anglica.
Laropis, *Wagler, Isis*, 1832, p. 1225	G. anglica.

Range. Temperate and warm regions of the Old World (except South Africa), down to Australia; also of America down to South Argentina, but almost unknown on the Pacific side.

1. Gelochelidon anglica.

? Egyptian Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 356 (1785: *ex Hasselquist, Iter.*, 1757); *id. Gen. Hist.* x. p. 110 (1824).

? Sterna nilotica, *Gm. S. N.* i. p. 606 (1788: *ex Hasselq.*); *Lath. Ind. Orn.* ii. p. 805 (1790).

Sterna anglica, *Mont. Orn. Dict. Suppl.* fig. (1813: type in Brit. Mus.); *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 41 (1816); *Temm. Man. d'Orn.* 2nd ed. p. 744 (1820); *Meyer, Taschenb.* iii. p. 188 (1822); *Licht. Verz. Doubl.* p. 81 (1823: Nubia); *Fleming, Brit. An.* p. 143 (1828); *Werner, Atlas, Palmipèdes*, pl. 8 (1828); *Lesson, Traité*, p. 621 (1831); *Neuwied, Beitr. Naturg. Bras.* iv. p. 867 (1833: S. Brazil); *Selby, Brit. B.* ii. p. 480, pl. 88. fig. 1 (1833); *Nuttall, Man. Orn.* ii. p. 269 (1834); *Jenyns, Man. Brit. Vertebr.* p. 269 (1835); *Eyton, Rarer Brit. B.* p. 97, figs., *and Cat. B. B.* p. 54 (1836); *Gould, B. Eur.* v. pl. 416 (1837); *Audub. B. Am.* pl. 410; *id. Synops.* p. 316 (1839); *id. Orn. Biogr.* v. p. 127 (1839); *D'Orbigny, in Sagra's N. H. Cuba*, p. 215 (1839); *Schinz, Europ. Faun.* p. 374 (1840); *Temm. Man. d'Orn.* 2nd ed. 4me pte. p. 460 (1840); *Naum. Vög. Deutschl.* x. p. 38, pl. 249 (1840); *Keys. & Blas. Wirb. Eur.* pp. xcviii & 247 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 278 (1840); *Jerdon, Madr. Journ.* xii. p. 224 (1840); *Selys-Longch. Faun. Belg.* p. 149 (1842); *Mühle, Orn. Griechenl.* p. 146 (1844); *Schl. Rev. Crit.* p. cxxx (1844); *Aud. B. Amer.* vii. p. 81, pl. 430 (1844); *Giraud,*

B. Long Is. p. 353 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 515 (1845); *Hewits. Eggs Brit. B.* ii. p. 431, pl. 121. fig. (1846); *Gray, Gen. B.* iii. p. 659 (1846); *Reichenb. Natat.* tab. xix. fig. 261 (1848); *Degl. Ois. Eur.* ii. p. 336 (1849); *Strickl. P. Z. S.* 1850, p. 222 (Kordofan); *Kjærb. Danm. Fugle*, p. 327, tab. 40 A. fig. 2 (1852), *Suppl.* tab. 20. fig. 1 (1854); *Schl. Vog. Nederl.* p. 613, pl. 361 (1854); *Heugl. Syst. Uebers.* p. 70 (1856); *Meyer, Br. B.* vii. p. 109, pl. 297 (1857); *Linderm. Vög. Griechenl.* p. 180 (1860); *Powys, Ibis*, 1860, p. 356 (Ionian Is.); *Simpson, Ibis*, 1860, p. 391 (Missolonghi, breeding); *Schl. Dier. Nederl., Vogels*, p. 241 (1861); *Radde, Reis. Sibir., Vög.* p. 388 (1863: Tarei-nor); *Gray, Cat. Brit. B.* p. 241 (1863); *Schl. Mus. P.-B.*, Sternæ, p. 34 (1863); *Salvad. Ucc. Sard.* p. 121 (1864); *Degl. et Gerbe, Orn. Eur.* ii. p. 450 (1867); *Borggr. Vogelf. Norddeutschl.* p. 145 (1869); *Doderl. Avif. Sicil.* p. 241 (1869); *Saund. Ibis*, 1871, p. 398 (S. Spain); *Harting, Handb. Brit. B.* p. 170 (1872); *Shelley, B. Egypt*, p. 297 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1425 (1873); *Coues, Key N. Amer. B.* p. 319 (1872); *id. Check-l.* no. 560 (1873); *Severtz. Turkest. Jevotn.* p. 70 (1873), and *Dresser's translat. in Ibis*, 1876, p. 415 (breeds up to 6000 ft.); *Irby, Orn. Str. Gibr.* p. 208 (1875); *Saund. P. Z. S.* 1876, p. 644 (revision); *Dresser, B. Eur.* viii. p. 295, pl. 585 (1877); *Prjev. in Rowley's Orn. Misc.* iii. p. 110 (1878: breeds in Valley of Hoang-ho, but not in Ussuri or China proper); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 64 (1878: Galveston, breeding); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 301; *id. op. cit.* 1880, p. 102 (New Guinea); *id. op. cit.* 1887, p. 1002 (West Australia); *Hume, Str. F.* viii. p. 115 (1879: list); *Legge, B. Ceylon*, p. 1011 (1880); *Cory, B. Bahamas*, p. 209 (1880); *Vidal, Str. F.* ix. p. 94 (1881: Malabar); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *id. Nomencl. N. Amer. B.* no. 679 (1881); *Salvad. Orn. Papuasia &c.* iii. p. 406 (1882); *Seebohm, Ibis*, 1882, p. 230 (breeds, Kirghiz steppes); *Coues, Check-list N. Amer. B.* p. 122 (1882); *Salvin, Cat. Strickl. Coll.* p. 623 (1882); *Biddulph, Ibis*, 1882, p. 290 (Gilgit); *Oates, B. Brit. Burm.* ii. p. 422 (1883); *B. O. U. List Br. B.* p. 182 (1883); *Tristr. Faun. & Flor. Palest.* p. 135 (1884); *Saunders, 4th ed. Yarr. Br. B.* iii. p. 531 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 277 (1884); *Seebohm, Br. B.* iii. p. 263 (1885); *Homeyer, Ornis*, 1885, p. 81; *Lutke, Ornis*, 1885, p. 146 (Denmark, breeds); *Torre & Tschusi, Ornis*, 1885, p. 563 (Plattensee, breeds); *Lutke, Ornis*, 1886, p. 99; *O. Winge, t. c.* p. 592 (Denmark); *Alléon, Ornis*, 1886, p. 424 (Dobrudscha); *Sharpe, Ibis*, 1886, p. 493; *id. op. cit.* 1891, p. 116 (Fao, breeds); *Bianchi, Mél. Biol. Ac. St. Pétersb.* xii. liv. 5, p. 682 (1886: Pamirs); *Tait, Ibis*, 1887, p. 394 (Portugal, breeds); *Hume, Str. Feath.* xi. p. 349 (1888: Manipur); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. no. 3, p. 57 (1888: Turkestan); *Tristr. Cat. Coll.* p. 8 (1889); *Feilden, Ibis*, 1889, p. 502 (Barbados); *North, Nests & Eggs Austral. B.* p. 355, pl. xvii. fig. 2 (1889); *Saund. Man. Brit. B.* p. 623 (1889); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 304 (1890); *Stevenson & Southw. B. Norfolk*, iii. p. 307 (1890); *Cory, B. Bahamas*, p. 209 (1890); *Holland, Ibis*, 1890, p. 428; *id. op. cit.* 1892, p. 212 (Buenos Aires prov.); *Keller, Orn. Carinthiæ*, p. 306 (1890); *Saund. Ibis*, 1891, p. 187 (Lake Léman); *Gätke, Vogelw. Helgol.* p. 587 (1891); *Jäckel & Blas. Vög. Bayerns*, pp. 366–374 (1891); *De la Touche, Ibis*, 1892, p. 502 (Foochow & Swatow, spring & autumn); *Lilford, Col. Fig. Brit. B.* pt. xxix. (1894).

Sterna aranea, *Wils. Am. Orn.* viii. p. 143, pl. 72. fig. 6 (1814); *Vieill. Enc. Méthod.* i. p. 348 (1820); *Bp. Obs. Nomencl. Wilson*, no. 243 (1826); *id. Ann. Lyc. N. Y.* ii. p. 354 (1828); *Audouin, Hist. Nat. Egypte*, pl. 9. fig. 2; *id. Expl. Sonnini*, 2nd ed. p. 418 (1828); *Vieill. Faune Franç.* p. 398, pl. 161. fig. 1 (1828); *Savi, Orn. Tosc.* iii. p. 90 (1831); *Jard. ed. Wilson's Amer. Orn.* iii. p. 179 (1832); *Gray, Gen. B.* iii. p. 659 (1846); *Gay, Faun. Chil., Zool.* i. p. 485 (1847); *Reichenb. Natat.* tab. xxii. figs. 826–827 (1848); *Burm. Th. Bras.* iii. p. 452 (1856); *Baird, Cass. & Lawr. B. N. Amer.* p. 859 (1858); *Dresser, Ibis*, 1866, p. 44 (Texas); *Léot. Ois. Trinid.* p. 540 (1866); *Gray, Hand-l. B.* iii. p. 119 (1871); *Pelz. Orn. Bras.* p. 325 & p. 461 (1871).

Sterna affinis, *Horsf.* [*nec Rüpp.*] *Trans. Linn. Soc.* xiii. p. 199 (1820); *id. Zool. Res. Java*, p. 8 (1824).

Thalasseus anglicus, *Boie, Isis*, 1822, p. 563.

Sterna risoria, *Brehm, Vögelk.* iii. p. 650, tab. v. (1822); *id. Lehrb. Eur. Vög.* p. 682 (1824).

Sterna meridionalis, *Brehm, Lehrb. Eur. Vög.* p. 988 (1824); *Heugl. Ibis*, 1859, p. 35 (Massaua).

Viralva anglica, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 174 (1826); *Sykes, P. Z. S.* 1832, p. 172; *Gray, List Gen.* p. 79 (1840).

Viralva affinis, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 175 (1826: *ex Horsfield*).

? Hydroprogne aranea, *Kaup, Natürl. Syst.* pp. 91 & 196 (1829).

Gelochelidon balthica, *Brehm, Vög. Deutschl.* p. 772 (1831); *id. Vogelf.* p. 346 (1855); *id. Naum.* 1855, p. 295.

Gelochelidon agraria, *Brehm, Vög. Deutschl.* p. 773 (1831); *id. Vogelf.* p. 347 (1855); *id. Naum.* 1855, p. 295.

Gelochelidon meridionalis, *Brehm, Vög. Deutschl.* p. 774 (1831: *type of genus* Gelochelidon); *id. Vogelf.* p. 347 (1855); *id. Naum.* 1855, p. 295; *Bp. C. R.* xlii. p. 772 (1856); *Loche, Expl. Sc. Algér., Ois.* ii. p. 198 (1867).

Gelochelidon aranea, *Brehm, Vög. Deutschl.* p. 775 (1831); *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838); *Brehm, Vogelf.* p. 347 (1855); *id. Naum.* 1855, p. 295; *Bp. C. R.* xlii. p. 772 (1856).

Laropis anglica, *Wagl. Isis*, 1832, p. 1225.

"Sterna nuttalli, *Aud.*," *Nuttall's Man. Orn.* ii. p. 279, footnote (1834: Tortugas); *Gray, Gen. B.* iii. p. 659 (1846).

Sterna macrotarsa, *Gould, P. Z. S.* 1837, p. 26 (Tasmania); *id. Syn. B. Austr.* pt. ii. fig. 2 (1837); *Gray, Gen. B.* iii. p. 659 (1846); *id. Hand-l. B.* iii. p. 119, no. 11042 (1871).

Gelochelidon anglica, *Bp. Comp. List B. Eur. & N. Am.* p. 61 (1838); *id. Cat. Ucc. Eur.* p. 76 (1842); *Rüpp. Syst. Uebers.* p. 139 (1845: Red Sea); *Boie, Isis*, 1844, p. 187; *Reichenb. Syst. Nat.* tab. iv. (1850), *and Av. Syst. Nat.* p. v (1852); *Macgill. Br. B.* v. p. 666 (1852); *Licht. Nomencl. Av.* p. 97 (1854); *Bp. C. R.* xlii. p. 772 (1856); *Jaub. & Lapomm. Rich. Orn.* p. 401 (1859); *Salvin, Ibis*, 1859, p. 364 (Tunisia); *Tristr. Ibis*, 1860, p. 82 (Sahara); *Coues, Pr. Philad. Acad.* 1862, p. 536; *id. Ibis*, 1864, p. 388; *Salvin, op. cit.* 1866, p. 199 (Chiapam); *Adams, Ibis*, 1864, p. 36 (Egypt & Nubia); *Blasius, J. f. O.* 1866, p. 82 (revision); *Fritsch, Vög. Eur.* p. 457, tab. 55. fig. 1 (1870); *Salvad. Faun. Ital., Ucc.* p. 283 (1871); *Allen, Bull. Harv. Coll.* ii. p. 366 (1871: Florida); *Scl. & Salv. P. Z. S.* 1871, p. 572 (revision); *Holdsw. op. cit.* 1872, p. 480 (Ceylon); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 147 (1873); *Gould, B. Gt. Br.* v. pl. 74 (1873); *Salvad. Ucc. Borneo*, p. 371 (1874); *Blyth & Wald. B.*

Burm. p. 163 (1875); *Taczan. Bull. Soc. Zool. France*, 1875, p. 261 (Tarei-nor); *Hume, Str. Feath.* iv. p. 294 (1876: Andamans); *Gundl. Orn. Cuba*, p. 309 (1876); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 51 (1876: Tehuantepec); *Hume & Davison, Str. F.* vi. p. 491 (1878: Tenasserim); *Davids. & Wend. Str. F.* vii. p. 93 (1879: Deccan); *Cripps, t. c.* p. 313 (E. Bengal); *Biddulph, Ibis*, 1881, p. 102 (Gilgit); *Giglioli, Ibis*, 1881, p. 218 (Italy); *Salvad. Orn. Papuasia*, iii. p. 430 (1882); *Zeledon, Cat. Av. Costa Rica*, p. 36 (1882); *Radde, Orn. Cauc.* p. 485 (1884); *Nikolshy, Trud. St. Pétersb.* xvii. p. 402 (1886); *Giyl. Avif. Ital.* p. 414 (1886); *Olphe-Gall. Contr. Faun. Orn. Eur. Occid.* liv. x. p. 15 (1886); *Radde & Walter, Ornis*, 1889, p. 126 (Transcaspia); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlix. p. 419 (1889: Sumatra); *Giyl.* i. *Resoc. Av. Ital.* p. 629 (1889); *id.* ii. *Resoc.* p. 652 (1891).

Gelochelidon anglicus, *Gray, List Gen.* p. 100 (1841); *Blyth, Cat. B. Mus. As. Soc.* p. 290 (1849); *Jerd. B. Ind.* iii. p. 836 (1864); *Lloyd, Ibis*, 1873, p. 421 (Kattiawar).

Viralva aranea, *Darwin, Zool. 'Beagle,'* iii. p. 143 (1841: Bahia Blanca).

Gelochelidon palustris, *Macgill. Man. Br. Orn.* pt. ii. p. 237 (1842).

The Gull-billed Tern, *Yarr. Br. B.* iii. p. 407 (1843).

Gelichelidon anglica, *Gray, List B. in Brit. Mus.* iii. (Anseres), p. 176 (1844).

Hydrocecropis nuttalli, *Boie, Isis*, 1844, p. 179.

? Hydrochelidon nilotica (*Gm.*), *Boie, Isis*, 1844, p. 184.

Gelochelidon affinis, *Boie, Isis*, 1844, p. 187; *Bp. C. R.* xlii. p. 772 (1856).

Gelochelidon macrotarsa, *Boie, Isis*, 1844, p. 187; *Reichenb. Vög. Neuholl.* p. 347 (1850); *Bp. C. R.* xlii. p. 772 (1856); *Gould, Handb. B. Austr.* ii. p. 403 (1865); *id. B. Austr. Suppl.* pl. 81 (1869); *Gray, Hand-l. B.* iii. p. 119 (1871); *Ramsay, P. Z. S.* 1877, p. 348 (Brisbane).

Gelochelidon velox, *Brehm, Vogelf.* p. 347 (1855); *id. Naum.* 1855, p. 295.

Sterna nilotica, *Gray, Hand-l. B.* iii. p. 119 (1871); *Hume, Str. F.* i. p. 281 (1873: Sind); *R. M. Adam, t. c.* p. 403 (Sambhur L., winter); *Hume, Nests & Eggs Ind. B.* p. 648 (1875); *E. A. Butler, Str. F.* iv. p. 31 (N. Guzerat); *J. Armstrong, Str. F.* iv. p. 351 (Irrawaddy); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 61 (1889); *Frivaldsky, Av. Hung.* p. 179 (1891); *Madarász, Ausst. Ung. Vogelf.* p. 120 (1891); *Hartert, Katal. Vogelsamml. Senckenb.* p. 240 (1891); *Reichenow, Vög. Deutsch. O.-Afr.* p. 21 (1894: Victoria Nyanza).

Sterna (Gelochelidon) anglica, *Coues, B. N.-West*, p. 664 (1874); *id. Key N. Amer. B.* 2nd ed. p. 757 (1884).

Gelochelidon nilotica, *Stejneger, Auk*, 1884, pp. 364–366 (*ex Hasselq.*); *A. O. U. Check-list N. Amer. B.* p. 92 (1887); *Salvad. Ucc. Ital.* p. 279 (1887); *Ridgw. Man. N. Amer. B.* p. 38 (1887); *Cory, B. West Indies*, p. 277 (1889); *Heine & Reichen. Nomencl. Mus. Hein.* p. 354 (1890); *Rhoads, Pr. Ac. Philad.* 1892, p. 101 (Corpus Christi, Texas, breeding); *Cory, Cat. West Ind. B.* p. 92 (1892).

Adult male in breeding-plumage. Forehead, crown, upper half of lores, nape, and nuchal crest jet-black; mantle, upper tail-coverts, and tail pearl-grey, the outer feathers of the latter whitish; primaries grey when new and frosted, but darker, inclining to iron-grey towards the tips and especially on the inner webs, when the

frosting has worn off; a distinct white wedge on the upper part of the inner web of the outer primary, but smaller and less defined in the succeeding flight-feathers; shafts of the four outer pairs of primaries white; lower half of the lores, chin, and entire underparts white: bill black, occasionally reddish at the base of the lower mandible; iris hazel-brown; tarsi and toes black, with a reddish tinge; webs moderately indented. Total length 14·5 to 15·5 inches, culmen 1·8 to 2, wing 12 to 13, tail 5·5 to 6, depth of fork 1·5, tarsus 1·45, middle toe and claw 1·25.

Adult female. Similar to the male, but slightly smaller, and with a somewhat less robust bill.

Adult in winter. Forehead, upper lores, crown, and nape white, with black streaks, which form a patch before and behind the eye; otherwise as in summer. The primaries are usually fresh and frosted in November and December.

Young. Similar to the above, but the primaries are darker; the streaks on the head are greyish on a somewhat buff-tinted white; the feathers of the upper parts are edged with whitish buff, and have arrow-headed brown markings in their centres. Up to September these buff and brown markings are pronounced, but are afterwards lost. In birds just fledged the upper parts are chiefly pale fawn-colour, especially in the middle of the back; bill and feet reddish brown.

Nestling. Upper parts stone-buff, streaked and mottled with dull brown; underparts dull white.

American birds are often slightly smaller than European examples, and Australian specimens are inclined to be larger, but there are numerous exceptions.

Hab. Europe below 55° N. lat. in summer; temperate and warm Asia, except China proper, where it is only known in the south; Malayasia to Australia (breeds); Northern Africa and Egypt; eastern portion of North America, and down to South Argentina, but not noticed on the Pacific side, except on the coast of Guatemala. Sandy shores of sea-coasts or inland lakes. The eggs, deposited on the bare sand, dried mud, or sea-drift, are intermediate in character between those of the Terns and the Gulls.

a. Imm. sk.	Sussex (*Montagu*).	Col. Montagu [P.]. (Type of *Sterna anglica*.)
b. Ad. st.	Christchurch, Hants, May 14, 1872.	Baron A. von Hügel [P.].
c. Ad. sk.	Europe (*Lichtenstein*).	Riocour Coll.
d. Ad. sk.	South Spain.	Lord Lilford [P.].
e. ♀ ad. sk.	Andalucia, April 29 (*H. S.*).	H. Saunders Coll.
f. Ad. st.	Athens.	C. L. W. Merlin, Esq. [P.].
g. Juv. sk.	Crimea (figured in Gould's 'Birds of Europe').	H. Saunders Coll.
h. Juv. sk.	Crimea, Sept. (*Th. Schmidt*).	Gould Coll.
i. ♂ ad. sk.	Volga, May (*H. T. Möschler*).	Hume Coll.
k. ♂ ad. sk.	S. Russia, April.	H. Saunders Coll.
l. Ad. sk.	Zana, Algeria (*O. S.*).	Salvin-Godman Coll.
m. Ad. sk.	Tunis.	L. Fraser [C.].

n. Ad. st.	Egypt.	Sir John Bowring [P.].
o, *p*. ♀ ad. sk.	Fayoom, Feb. (*G. E. S.*).	Shelley Coll.
q. Ad. sk.	Damietta, March 29 (*G. E. S.*).	Shelley Coll.
r, *s*. ♀ vix ad. sk.	Fao, Persian Gulf, Aug. 27.	W. D. Cumming, Esq. [P.].
t. Imm. sk.	"India."	Dr. T. C. Jerdon [P.].
u. Ad. sk.	Jellalabad, Nov. (*Griffiths*).	India Museum.
v, *w*. ♂ ♀ ad. sk.	Karachi, Sind, Feb. (*E. A. Butler & A. O. Hume*).	Hume Coll.
x. Ad. sk.	Belachery, Cutch, Oct. 24.	Col. Hayes-Lloyd [P.].
z, *a'*. ♀ ad. sk.	Sambhur, Dec.–Feb. (*R. M. Adam*).	Hume Coll.
b'. Ad. sk.	Sambhur, March 6 (*R. M. Adam*).	Hume Coll.
c'. ♀ ad.; *d'*. ♀ imm. sk.	Sambhur, May 10 (*R. M. Adam*).	Hume Coll.
e'. ♂ ad. sk.	Sambhur (*A. O. Hume*).	Hume Coll.
f'. ♂ ad. sk.	Gurgaon, Jan.	Hume Coll.
g'. Ad. sk.	Woolar Lake, Cashmere, breeding (*Col. Delmé-Radcliffe*).	H. Saunders Coll.
h'. ♂ ad.; *i*. ♀ juv. sk.	Gilgit, 5000 ft., Aug.	Col. Biddulph [P.].
k', *l'*. ♂ imm. sk.	Futtehgurh, March (*A. Anderson*).	Seebohm Coll.
m', *n'*. Imm. sk.	Etawah, Oct.–Nov.	Hume Coll.
o'. Imm. sk.	Oudh, Dec. (*W. E. Brooks*).	Hume Coll.
p', *q'*. Ad. et juv. sk.	N.W. India (*S. P.*).	Pinwill Coll.
r', *s'*. Ad. et ♀ imm. sk.	Dinapur, Feb.	Hume Coll.
t'. Imm. sk.	Deccan (*Col. Sykes*).	India Museum.
u'. Imm. sk.	Darjeeling (*Pearson*).	India Museum.
v', *w'*, *x'*. Ad. sk.	Bombay Harbour, Feb. 1 (*A. O. H.*).	Hume Coll.
y'. ♀ ad. sk.	Hambantota, S.E. Ceylon, Aug. (*W. V. L.*).	Col. W. V. Legge [P.].
z'. ♂ ad. sk.	Hambantota, S.E. Ceylon, Aug. (*W. V. L.*).	H. Saunders Coll.
a''. ♀ ad. sk.	Komidi, S.E. Ceylon, March (*W. V. L.*).	H. Saunders Coll.
b''. Imm. sk.	Aripo, N.W. Ceylon, Aug. (*E. W. H. Holdsworth*).	H. Saunders Coll.
c''. ♀ imm. sk.	Andaman Is., Nov. (*Capt. Wimberley*).	Hume Coll.
d''. Imm. sk.	Lower Pegu.	E. W. Oates Coll.
e''. ♀ imm. sk.	Elephant Point, near Rangoon, Dec. (*J. Armstrong*).	Hume Coll.
f''. ♂ imm. sk.	Sittang River, Feb. (*W. Davison*).	Hume Coll.
g''. ♀ imm.; *h''*, *i''* ♂ ♀ ad.; *k''*. ♀ imm.; *l''*. ♀ ad. sk.	Thatone, Nov.–Jan. (*W. D.*).	Hume Coll.

m'. ♂ ad. sk.	Khyketo, Feb. (*W. Davison*).	Hume Coll.
n''. ♀ ad. sk.	Salween River, Feb. (*W. D.*).	Hume Coll.
o''. ♀ ad. sk.	Eastern Grove, Burma, Jan. (*J. Armstrong*).	Hume Coll.
p''. ♀ imm. sk.	Wippitan, Dec. (*J. Darling*).	Hume Coll.
q''. ♀ imm. sk.	Amherst, Feb. (*W. Davison*).	Hume Coll.
r'' ♂ imm. sk.	Mergui Is., Tenasserim, Nov. (*W. D.*).	Hume Coll.
s''. Imm. sk.	Kaora, Pakchan, Nov.	Hume Coll.
t''. Imm. sk.	Baram, Borneo, Sept. (*A. H. E.*).	A. H. Everett Coll.
u''. Imm. sk.	Labuan, Borneo, Sept. (*A. H. E.*).	A. H. Everett Coll.
v''. Imm. sk.	Java.	Gould Coll.
w''. Ad. sk.	Australia.	H. Saunders Coll.
x''. Ad. sk.	N. Australia, Feb. 1856.	J. R. Elsey, Esq. [P.].
y''. Ad. st.	Port Albany, N. Australia.	Gould Coll.
z''. Ad. st.	Moreton Bay, near Brisbane.	Gould Coll.
a^3. Ad. sk.	New South Wales.	Australian Mus. [P.].
b^3. Ad. sk.	Hog I., Virginia (*Hitz & Stimpson*).	H. Saunders Coll.
c^3. Pull. sk.	Bone I., Virginia, July (*Henshaw Coll.*).	Salvin-Godman Coll.
d^3. Pull. sk.	Cobb's I., Virginia, July (*Henshaw Coll.*).	Salvin-Godman Coll.
e^3. ♀ juv.; f^3. Juv.; g^3. ♂ ad. sk.	Cobb's I., Virginia, July (*Henshaw Coll.*).	Salvin-Godman Coll.
h^3, i^3. Ad.; k^3. ♀ juv. sk.	Cobb's I., Virginia, Aug. & Sept. (*Henshaw Coll.*).	Salvin-Godman Coll.
l^3–r^3. ♂ ad.; s^3–v^3. ♀ ad. sk.	Corpus Christi, Texas, May, (*F. B. Armstrong*).	Salvin-Godman Coll.
w^3. ♂ ad.; x^3, y^3. ♀ ad.; z^3, a^4. ♂ imm. sk.	Corpus Christi, Nov. (*F. B. A.*).	Salvin-Godman Coll.
b^4, c^4. Vix. ad. sk.	Chiapam, S.W. Guatemala (Pacific coast), Jan. (*O. S.*).	Salvin-Godman Coll.
d^4. ♀ juv. sk.	Barbados, Oct. (*H. W. F.*).	Col. H. W. Feilden [P.].
e^4, f^4. Juv. sk.	Grenada, West Indies, Sept. 2 (*D. W. Smith*).	Salvin-Godman Coll.
g^4. Ad. sk.	Demerara.	Gould Coll.
h^4. Ad. sk.	Bahia, Brazil, winter.	J. W. Baker, Esq. [P.].
i^4, k^4. Ad. sk.	Sta. Catharina, S. Brazil (*Rogers*).	Salvin-Godman Coll.
l^4, m^4. Ad. sk.	Sta. Catharina, S. Brazil (*Rogers*).	H. Saunders Coll.
n^4. Ad. st.	Bahia Blanca, S. Argentina, Jan. 1837.	C. Darwin, Esq. [P.].

4. HYDROPROGNE.

Type.

Thalasseus, pt., *Boie, Isis*, 1822, p. 563.
Hydroprogne, *Kaup, Natürl. Syst.* p. 91 (1829) ..... H. caspia *.
Sylochelidon, *Brehm, Vög. Deutschl.* p. 770 (1831) ..... H. caspia.
Helopus, *Wagl. Isis*, 1832, p. 1224 ..... H. caspia.

Range. Almost cosmopolitan ; the exceptions being Tropical and South America and the Islands of the Pacific.

1. Hydroprogne caspia.

The Caspian Tern.

Sterna caspia, *Pall. Nov. Comm. Petrop.* xiv. i. p. 582, tab. xxii. fig. 2 (1770) ; *id. Zoogr. Rosso-As.* p. 332 (1811) ; *Gm. S. N.* i. p. 603, and var. β, p. 604 (1788) ; *Lath. Ind. Orn.* ii. p. 803, and var. *b*, p. 804 (1790) ; *Bechst. Naturg. Deutschl.* ii. p. 825 (1791) ; *Retz. Faun. Suec.* p. 164 (1800) ; *Temm. Man. d'Orn.* p. 476 (1815) ; *Nilss. Orn. Suec.* p. 155 (1817) ; *Temm. Man. d'Orn.* ed. 2, p. 733 (1820) ; *Brehm, Beitr. Vogelk.* iii. p. 630 (1822) ; *id. Lehrb. Eur. Vög.* p. 680 (1824) ; *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 146 (1825) ; *Werner, Atlas, Palmipèdes*, pl. 2 (1828) ; *Audouin, Hist. Nat. Egypte*, pl. 9. fig. 1 ; *id. in Expl. Sonnini*, 2nd ed. p. 416 (1828) ; *Lesson, Traité*, p. 622 (1831) ; *Savi, Orn. Tosc.* iii. p. 96 (1831) ; *Ménétr. Cat. Rais. Cauc.* p. 55 (1832) ; *Selby, Brit. B.* ii. p. 463 (1833) ; *Jenyns, Man. Brit. Vertebr.* p. 264 (1835) ; *Eyton, Cat. Brit. B.* p. 54 (1836) ; *Gould, B. Eur.* v. pl. 414 (1837) ; *Crespon, Orn. Gard*, p. 471 (1840) ; *Naum. Vög. Deutschl.* x. p. 18, pl. 248 (1840) ; *Temm. Man. d'Orn.* 4me pte. p. 454 (1840) ; *Schinz, Eur. Faun.* i. p. 370 (1840) ; *Keys. & Blas. Wirb. Eur.* pp. xcvii & 115 (1840) ; *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 277 (1840) ; *Macgill. Man. Brit. B.* pt. ii. p. 230 (1842) ; *Selys-Longch. Faun. Belg.* p. 149 (1842) ; *Schl. Rev. Crit.* p. cxxviii (1844) ; *Gray, List B. Brit. Mus.* p. 175 (1844) ; *Yarr. Brit. B.* ed. 2, iii. p. 493 (1845) ; *Gray, Gen. B.* iii. p. 658 (1846) ; *Hewits. Eggs Brit. B.* ii. p. 421, pl. 97 (1846) ; *Reichenb. Natat.* tab. xviii. figs. 258–260 (1848) ; *Degl. Orn. Eur.* ii. p. 337 (1849) ; *Brandt in Lehmann's Reise n. Buchara*, p. 330 (1852 : Caspian) ; *Kjærb. Danmk. Fugle*, p. 326, tab. 40 A. (1852), *Suppl.* tab. 20. figs. 1, 2 (1854) ; *Schl. Vog. Nederl.* p. 612, pl. 360 (1854) ; *Heugl. Syst. Uebers.* p. 70 (1856 : Egypt and Nubia) ; *Meyer, Brit. B.* vii. p. 71, pl. 289 (1857) ; *Hartl. Orn. W.-Afr.* p. 253 (1857 : Gambia) ; *Baird, Cass. & Lawr. B. N. Amer.* p. 859 (1858) ; *Baird, Cat. N. Amer. B.* no. 682 (1858) ; *Erhard, Faun. Cykladen*, p. 45 & p. 62 (1858) ; *Heugl. Ibis*, 1859, p. 350 (Red Sea) ; *Cass. Pr. Philad. Ac.* 1859, p. 175 (Camma River, W. Africa) ; *Linderm. Vög. Griechenl.* p. 81 (1860) ; *Heugl. in Peterm. Mitth.* 1861, p. 29 (Red Sea, resident) ; *Swinh. Ibis*, 1861, p. 68 (Amoy), *op. cit.* 1861, p. 345 (Pekin), *op. cit.* 1863, p. 430 (Formosa) ; *Sundev. Sv. Fogl.* pl. 48, fig. 1 (1863 ?) ;

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* It is true that Kaup also included *Sterna aranea* in this genus, being probably unacquainted with the species to which that name applied ; but he insisted upon the *strong red bill* as the main generic distinction.

Hartl. Faun. Madag. p. 85 (1861: Madagascar); *Schl. Dier. Nederl. Vogels*, p. 241 (1861); *Gray, Cat. Brit. B.* p. 238 (1863); *Radde, Reis. Sibir., Vög.* p. 388 (1863); *Salvad. Ucc. Sard.* p. 120 (1865); *Taylor, Ibis*, 1867, p. 72 (Damietta); *Layard, B. S. Afr.* p. 269 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 448 (1867); *Schl. & Poll. Faune Madag., Ois.* p. 147 (1868); *Holtz, J. f. O.* 1868, p. 125 (Gottland, breeds); *Chapman, Trav. S. Afr.* ii. p. 424 (1868: Walvisch Bay); *Borggr. Vogelf. Norddeutschl.* p. 149 (1869); *Doderl. Avif. Sicil.* p. 240 (1869); *Finsch & Hartl. Vög. Ost-Afr.* p. 826 (1870); *Swinh. Ibis*, 1870, p. 366 (Hainan); *Finsch, J. f. O.* 1870, p. 364, *op. cit.* 1872, p. 253, *op. cit.* 1874, p. 205 (New Zealand); *Saunders, Ibis*, 1871, p. 398 (S. Spain); *Gray, Hand-l. B.* iii. p. 120 (1871); *Hutton, Cat. N. Zeal. B.* p. 42 (1871); *Gurney in Anderss. B. Dam. Ld.* p. 359 (1872); *Harting, Handb. Br. B.* p. 167 (1872); *Coues, Key N. Amer. B.* p. 319 (1872); *Shelley, B. Egypt*, p. 296 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1434 (1873); *Buller, B. N. Zeal.* p. 279 (1873); *Palmén, Finlands Fogl.* p. 564 (1873); *Hume, Str. F.* i. p. 280 (1873: Sind); *Severtz. Turkest. Jevotn.* p. 296 (1873), and *Dresser's trans., Ibis*, 1876, p. 415 (breeds up to 3000 ft.); *Ridgway, Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Durnf. Ibis*, 1874, p. 401 (Sylt); *Oates, Str. F.* iii. p. 347 (1875); *Irby, Orn. Str. Gibr.* p. 208 (1875); *Sharpe, Voy. Ereb. & Terr., Birds*, App. p. 32 (1875); *Saund. P. Z. S.* 1876, p. 656 (revision); *Prjevalsky, Tian Shan to Lob-Nor, E. D. Morgan's transl.* p. 122 (1876: Lob-Nor); *Hartl. Vög. Madag.* p. 382 (1877); *Dresser, B. Eur.* viii. p. 289, pl. 584 (1877); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 65 (1878: Galveston); *Ramsay, Pr. Linn. Soc. N.S.W.* ii. p. 201 (1878); *Hume, Str. F.* viii. p. 115 (1879: List Ind. B.); *Legge, B. Ceylon*, p. 1008 (1880); *Parker, Str. F.* ix. p. 487 (1880: Manaar, Ceylon, breeds); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Salvin, Cat. Strickl. Coll.* p. 624 (1882); *Nelson, Cruise 'Corwin,'* p. 109 (1882: not N. of St. Michael's, Alaska); *Coues, Check-list N. Amer. B.* p. 123 (1882); *Milne-Edwards & Grandid. H. N. Madag., Ois.* p. 650 (1882); *Seebohm, Ibis*, 1882, p. 230 (Seal Is., N. Caspian, breeds); *Oates, B. Brit. Burm.* ii. p. 427 (1883); *B. O. U. List Brit. B.* p. 182 (1883); *Shelley, Ibis*, 1883, p. 562 (Bonny); *Seebohm, Ibis*, 1884, p. 270 (Kiukiang); *Sharpe, ed. Layard's B. S. Afr.* p. 703 (1884); *Tristr. Faun. & Flor. Palest.* p. 135 (1884); *Saunders, 4th ed. Yarr. Br. B.* iii. p. 536 (1884); *Baird, Brew. & Ridgw. Water-B. N. Amer.* ii. p. 280 (1884); *Sharpe, Rep. Voy. 'Alert,'* p. 28 (1884); *Seeb. Brit. B.* iii. p. 268 (1885); *Homeyer, Ornis*, 1885, p. 81; *Lutke, t. c.* p. 146; *Torre & Tsch. t. c.* p. 563 (Dalmatia); *Turner, Pr. U.S. Nat. Mus.* viii. p. 252 (1885: Moose Factory, Hudson Bay); *Buchner, Beitr. Russ. Reiches*, (2) ii. p. 128 (1885: St. Petersburg); *Alléon, Ornis*, 1886, p. 424 (Dobrudsha, breeds); *Hartert, MT. orn. Ver. Wien*, 1887, p. 180, and *Ibis*, 1892, p. 520 (East Prussia); *Gurney, Zool.* 1887, p. 457 (England); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 57 (1888: Turkestan); *Taczan. Ornis*, 1888, p. 505 (Warsaw); *Riesenth. Wasservög. Mitteleurop.* p. 141 (1889); *Lilford, Ibis*, 1889, p. 347 (Cyprus); *Tristr. Cat. Coll. B.* p. 8 (1889); *Saund. Man. Br. B.* p. 625 (1889); *Zaroud. Bull. Soc. Mosc.* 1889, p. 841; *Reichenow, Syst. Verz. Vög. Deutschl.* p. 62 (1889); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 295 (1890: Ceylon); *Sharpe, Ibis*, 1891, p. 115 (Fao); *Gätke, Vogelwarte Helgol.* p. 586 (1891); *Styan, Ibis*, 1891, p. 509 (Kiukiang); *Frivaldsky, Av. Hungar.* p. 179 (1891); *Madarász, Ausst. Ung. Vogelf.* p. 121 (1891); *Rendall, Ibis*, 1892, p. 230 (Gambia, resident);

Walker, *Ibis*, 1892, p. 258 (Adèle Id., N.W. Australia); *Hartl. Abh. nat. Ver. Bremen*, xii. Heft 2 (1892) p. 334 (Hainan); *Sharpe*, *Bull. B. O. C.* xi. p. v (1893: Suakin); *Lilford*, *Col. Figs. Brit. B.* pt. xxviii. (1894); *Reichenow*, *Vög. Deutsch. O.-Afr.* p. 20 (1894).

Sterna tschegrava, *Lepechin*, *Nov. Comm. Petrop.* xiv. i. p. 500, tab. xiii. fig. 2 (1770); *Ridgw. Mm. N. Amer. B.* p. 39 (1887); *Nelson*, *Rep. Alaska*, p. 58 (1887: Yukon); *Beckham*, *Pr. U. S. Nat. Mus.* x. p. 644 (1888: Texas); *Rhoads*, *Pr. Acad. Philad.* 1892, p. 101 (Texas); *White*, *Auk*, 1893, p. 222 (Lake Michigan).

Larus atricilla, *S. G. Gm. Nov. Comm. Petrop.* xv. p. 478, pl. xxii. fig. 2 (1771: Tscherkask).

Caspian Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 350, and var. A, p. 351 (1785); *Yarr. Brit. B.* iii. p. 385 (1843).

Sterna caspica, *Sparrm. Mus. Carls.* ii. fasc. 3, no. 62 (1788); *Powys*, *Ibis*, 1860, p. 356 (Corfu & Epirus); *Kirk*, *Ibis*, 1864, p. 337 (Mouth of Zambesi, breeding); *Keller*, *Orn. Carinthiæ*, p. 306 (1890).

Sterna megarhynchos, *Wolf u. Meyer*, *Vög. Deutschl.* ii. p. 33, and fig. (1805); *Meyer u. Wolf*, *Tasch. deutsch. Vög.* ii. p. 457, and fig. (1810).

Thalasseus caspius, *Boie*, *Isis*, 1822, p. 563; *Coues*, *Pr. Philad. Acad.* 1862, p. 537; *id. Pr. Essex Inst.* v. p. 308 (1868); *Lawr. Ann. Lyc. N. Y.* viii. p. 299 (1866); *Elliot*, *New & Unfig. B. N. Am.* ii. pl. 56 (1869); *Olphe-Gall. Contr. Faun. Orn. Eur. Occid.* liv. x. p. 5 (1886); *Salvad. Ucc. Ital.* p. 274 (1887).

Sterna schillingi, *Brehm*, *Beitr. Vogelk.* iii. p. 641, tab. iv. (1822); *id. Lehrb. Eur. Vög.* p. 681 (1824).

Hydroprogne caspia, *Kaup*, *Natürl. Syst.* p. 91 & p. 196 (1829: type of genus); *Fritsch*, *Vög. Eur.* p. 454, Taf. 54. fig. 11 (1870); *Gould*, *B. G. Brit.* v. pl. 68 (1873).

Sylochelidon caspia, *Brehm*, *Vög. Deutschl.* p. 770 (1831); *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *id. Cat. Ucc. Eur.* p. 72 (1842); *Gray*, *List Gen.* p. 79 (1840), and p. 100 (1841); *Boie*, *Isis*, 1844, p. 186; *Rüpp. Syst. Uebers.* p. 139 (1845); *J. E. Gray*, *List Osteol. Spec. B. M.* p. 122 (1847); *Blyth*, *Cat. B. Mus. As. Soc.* p. 290 (1849); *Lawr. Ann. Lyc. N. Y.* v. p. 37 (1850: New Jersey); *Macgill. Brit. B.* v. p. 626 (1852); *Licht. Nomencl. Av.* p. 98 (1854); *Brchm, Vogelf.* p. 345 (1855); *id. Naum.* 1855, p. 295; *Bp. C. R.* xlii. p. 772 (1856); *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 401 (1859); *Swinh. P. Z. S.* 1863, p. 328 (China); *A. E. Brehm*, *Reis. Habesch*, p. 229 (1863); *Adams*, *Ibis*, 1864, p. 36 (Egypt); *Jerd. B. Ind.* iii. p. 835 (1864); *Antin. Cat. descr. Ucc.* p. 115 (1864: Lower Egypt); *Philippi*, *Viagg. Pers.* p. 352 (1865); *Gould*, *Handb. B. Austr.* ii. p. 392 (1865); *Blas. J. f. O.* 1866, p. 82 (revision); *Loche*, *Expl. Sc. Algér.*, *Ois.* ii. p. 196 (1867); *Salvad. Faun. Ital.*, *Ucc.* p. 278 (1871); *Swinh. P. Z. S.* 1871, p. 421 (China); *Holdsw. op. cit.* 1872, p. 480 (Ceylon); *Taczan. Bull. Soc. Zool. France*, 1876, p. 261 (E. Siberia); *David & Oustal. Ois. Chine*, p. 522 (1877); *Masters*, *Pr. Linn. Soc. N.S.W.* 1877, p. 62 (Torres Str.); *Ramsay*, *t. c.* p. 386 (Carpentaria Gulf); *Radde*, *Orn. Cauc.* p. 484 (1884); *Tacz. Bull. Soc. Zool. France*, 1885, p. 477 (Ussuria); *Nikolsky*, *Trud. St. Pétersb.* xvii. p. 402 (1886); *Giglioli*, *Avif. Ital.* p. 411 (1886); *id. 1st Resoc. Av. Ital.* p. 627 (1889); *North*, *Nests & Eggs Austr. B.* p. 352, pl. xx. fig. 3 (1889); *Radde & Walter*, *Ornis*, 1889, p. 126 (Transcaspia); *De la Touche*, *Ibis*, 1892, p. 502 (S. China).

Sylochelidon balthica, *Brehm*, *Vög. Deutschl.* p. 769 (1831); *id. Vogelf.* p. 345 (1855); *id. Naum.* 1855, p. 295.

Sylochelidon schillingi, *Brehm, Vög. Deutschl.* p. 770 (1831); *id. Vogelf.* p. 345 (1855); *id. Naum.* 1855, p. 295.
Helopus caspius, *Wagl. Isis*, 1832, p. 1224.
Thalassites melanotis, *Sw. B. W. Afr.* ii. p. 253 (1837) *.
Thalassites, n. sp.?, no. 405, *Jerdon, Madr. Journ.* xii. p. 225 (1840).
Sylochelidon melanotis, *Boie, Isis*, 1844, p. 186; *Bp. C. R.* xlii. p. 772 (1856).
Sylochelidon macrorhyncha, *Boie, Isis*, 1844, p. 186.
Sylochelidon strenuus, *Gould, P. Z. S.* 1846, p. 21 (Bass Straits and Tasmania, breeds); *id. B. Austr.* vii. pl. 22 (1848); *Reichenb. Vög. Neuholl.* ii. p. 9 & p. 346 (1850).
Sterna cayana, *Richards. Journ. Boat-Voy.* i. p. 87 & p. 155 (1851: Great Slave Lake, breeds).
Sylochelidon strenua, *Bp. C. R.* xlii. p. 772 (1856).
Sterna melanotis, *Hartl. Orn. West-Afr.* p. 254 (1857); *W. A. Forbes, Ibis*, 1883, p. 500 (Bonny, large colony).
Sylochelidon caspica, *Reichenb. Syst. Nat.* tab. iv. (1850), and *Longipennes*, p. 5 (1852).
Sterna major, *Ellman, Zool.* s. s. p. 7472 (1861: New Zealand).
Thalasseus imperator, *Coues, Pr. Philad. Acad.* 1862, p. 538 (Labrador).
Sterna caspia, var. imperator, *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874).
Sterna (Thalasseus) caspia, *Coues, B. N.-West*, p. 667 (1874); *id. Key N. Amer. B.* 2nd ed. p. 757 (1884).
Thalasseus caspicus, *Rochebr. Faun. Sénég., Ois.* p. 336 (1884).

Adult male in breeding-plumage. Forehead, upper part of lores, crown, and nape glossy greenish black; mantle pale french-grey; primaries the same when new and frosted, but afterwards darker grey, turning to slate-colour on the margins of the inner webs; shafts white; the usual paler "wedges" in the middle of the inner webs hardly perceptible; tail greyish white to white; entire underparts pure white: bill vermilion-red, sometimes horn-coloured at tip; tarsi and toes black. Total length averages 20 inches, culmen 3·3, wing 16·5, tail 6, depth of fork 1·25, tarsus 1·65, middle toe with claw 1·7. There is considerable individual variation in dimensions, quite irrespective of locality.

Female. Similar, but slightly smaller, with a weaker and less brilliantly coloured bill.

Adult in winter. Crown, nape, and lores streaked with white and black, the latter colour thickest about the eyes and ear-coverts; bill orange-red, horn-coloured at the tip; otherwise as in summer.

Immature. Like the above, but orbital patch blacker; wing-coverts, secondaries, and tail-feathers with a good deal of brownish grey; primaries ash-grey to dull brown towards the tips.

Young. Similar, but feathers of the mantle and tail mottled and barred with brownish black.

Nestling, one day old. Above pale buff, inconspicuously mottled with dull brown, underparts dull white. Older nestlings show a greyer tint above.

Hab. Europe from about 60° N. lat. southwards; Asia to China (not in Japan); Malayasia, Australia, New Zealand; Africa;

* Type in Cambridge Museum examined.

North America, from a little beyond the Arctic Circle to Florida on the Atlantic, and to California on the Pacific. Eggs deposited on sandy shores of seas and lakes.

a. Imm. st.	"British Channel."	Purchased?
b. Pull. sk.; *c*. Pull. st.	Sylt, Frisian Is. (one day old).	Gould Coll.
d. Imm. sk.	Gambia, W. Africa.	Gov. Rendall [P.].
e. ♂ ad. sk.	Bonny River, W. Africa.	W. A. Forbes Coll.
f. Ad. sk.	Alexandria, Egypt, May (*G. E. S.*).	Shelley Coll.
g. ♂ ad. sk.	Damietta, Egypt, May (*G. E. S.*).	Shelley Coll.
h. Ad. sk.	Suakin, Red Sea.	Capt. R. H. Penton [P.].
i. Ad. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [P.].
k. ♀ ad. sk.	Sumianee Bay, Mekran Coast, Feb. (*A. O. H.*).	Hume Coll.
l. ♂ ad.; *m*. ♀ imm. sk.	Karachi, February.	Hume Coll.
n, *o*. ♂ ad. sk.	Karachi, March and July (*E. A. Butler*).	Hume Coll.
p. Ad. sk.	Karachi, Feb. (*W. B. Muloch*).	H. Saunders Coll.
q. ♂ ad. sk.	Manchar Lake, Sind, Feb. (*W. T. Blanford*).	H. Saunders Coll.
r. ♂ ad.; *s*. ♂ imm. sk.	Manchar Lake, Jan.–Feb. (*W. T. B.*).	Hume Coll.
t. ♀ ad. sk.	Manchar Lake (*A. O. H.*).	Hume Coll.
u. ♂ ad.; *v–y*. ♂ ♀ vix ad.; *z*. ♂, *a'*. ♀ imm. sk.	Mehur, N. Sind, Jan. (*A. O. H.*).	Hume Coll.
b'. ♀ ad. sk.	Larkhana, Sind, Jan. (*A. O. H.*).	Hume Coll.
c'. Juv. sk.	Deesa, Gujerat.	Hume Coll.
d'. ♀ ad. sk.	Futtehgurh, April (*A. Anderson*).	Seebohm Coll.
e'. ♀ imm. sk.	Khandeish, May.	Hume Coll.
f'. Vix ad. sk.	Khandeish.	Tweeddale Coll.
g'. Ad. sk.	Mangalore, Kanara Coast.	Hume Coll.
h'. ♀ imm. sk.	Trincomalee, Ceylon, Nov. (*Col. W. V. Legge*).	H. Saunders Coll.
i'. ♂ imm. sk.	Sittang River, June.	E. W. Oates [C.].
k'. ♀ vix ad. sk.	Ypana, Aug. (? *Severtzoff*).	Tweeddale Coll.
l'. Vix ad. sk.	Kiukiang, Yang-tse, Nov. 18, 1883.	F. W. Styan, Esq. [P.].
m'. Juv. sk.	Shanghai, China.	Gould Coll.
n'. Imm. sk.	Amoy, China, Feb. (*R. Swinhoe*).	H. Saunders Coll.
o'. Ad. sk.	Amoy, March (*R. S.*).	Seebohm Coll.
p'. ♀ ad. sk.	Formosa, March (*R. S.*).	Seebohm Coll.
q'. Ad. sk.	Australia.	Sir E. Home [P.].
r'. ♀ ad. sk.	Channel Rock, Torres Straits, June.	Voy. H.M.S. 'Alert.'
s'. Ad. st.	Claremont I., N. Australia.	Voy. H.M.S. 'Rattlesnake.'
t'. ♀ ad. sk.	Oyster Rock, N.W. Australia.	Dr. Bassett Smith [P.].

u'. Ad. sk.	Port Jackson, N.S.W.	Australian Museum [P.].
v'. Ad. sk.	Melbourne.	Gould Coll.
w'. Pull. st.	Actaeon I., Tasmania.	Voy. H.M.S. 'Rattlesnake.'
x'. Ad. st.	New Zealand.	Sir G. Grey [P.].
y'. ♂ ad. sk.	South Id., New Zealand, Dec.	R. B. Sharpe, Esq. [P.].
z'. ♂ ad. sk.	Big Id., Slave Lake, N. America.	B. R. Ross, Esq. [P.].
a''. ♂, *b''*. ♀ vix ad.; *c''*. Pull. sk.	Cobb's Id., Virginia, Aug. 2 (*H. W. Henshaw*).	Salvin-Godman Coll.
d''. Ad. sk.	Florida (*C. J. Maynard*).	H. Saunders Coll.
e''–k''. ♂ ♀ ad.; *l''*. ♀ vix ad. sk.	Corpus Christi, Texas, May-July, Nov. (*F. B. Armstrong*).	Salvin-Godman Coll.
m''. ♀ imm. sk.	San Diego, California, Dec. (*H. W. H.*).	Salvin-Godman Coll.
n''. ♂ ad. sk.	La Paz, Lower California, Nov. (*A. Forrer*).	Salvin-Godman Coll.
o''. ♂ vix ad. sk.	Presidio, W. Mexico, Feb. (*A. F.*).	Salvin-Godman Coll.
p''. ♀ ad. sk.	Mazatlan, W. Mexico, Dec. (*A. F.*).	Salvin-Godman Coll.
q''. Sternum.		Purchased.

5. SEENA.

	Type.
Seena, *Blyth*, *Cat. B. Mus. As. Soc.* p. 291 (1849)	S. aurantia.
Potamochelidon, *Heine*, *in Heine & Reichenow's Nomencl. Mus. Hein.* p. 355 (1890)	S. aurantia.

Range. India to Malacca.

1. Seena aurantia.

Sterna seena, *Sykes*, *P. Z. S.* 1832, p. 171, no. 231; *Jerd. Madr. Journ.* xii. (1840) p. 224; *Gray*, *Gen. B.* iii. p. 659 (1846); *Fraser*, *Zool. Typ.* pl. 70 (1850: Deccan, *Sykes*); *Gray*, *Hand-l. B.* iii. p. 121 (1871); *Hume*, *Str. F.* iii. p. 193 (1875: Upper Pegu); *id. Nests & Eggs Ind. B.* p. 648 (1875); *Saunders*, *P. Z. S.* 1876, p. 645 (revision); *Butler*, *Str. F.* iv. p. 32 (1876: North Guzerat); *Hume*, *Str. F.* v. p. 47 (1877: Cachar, rarely); *J. Anders. Yunnan Exped.* p. 693 (1878); *Hume*, *Str. F.* vi. p. 492 (1878: Tenasserim); *id. op. cit.* viii. p. 116 (1879: List Ind. B.); *Ball*, *op. cit.* vii. p. 233; *Cripps*, *t. c.* p. 314 (1878); *Scully*, *op. cit.* viii. p. 364 (1879: a visitant to Nepal Valley); *Legge*, *B. Ceylon*, p. 1093 (1880: not yet obtained in Ceylon); *Kelham*, *Ibis*, 1882, p. 201 (Malacca & Singapore); *Salvin*, *Cat. Strickl. Coll.* p. 623 (1882); *Oates*, *B. Burmah*, ii. p. 423 (1883); *Hume*, *Str. F.* xi. p. 350 (1888: Manipur); *Oates*, *2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 308 (1890).

Sterna aurantia, *J. E. Gray*, *Hardw. Ill. Ind. Zool.* i. pl. 69. fig. 2 (1832); *G. R. Gray*, *Gen. B.* iii. p. 659 (1846); *Reichenb. Natat., Novit.* viii. tab. cclxxi. fig. 2260 (1850); *Hume*, *Str. F.* 1873, p. 281.

Sterna brevirostris, *J. E. Gray*, *Hardw. Ill. Ind. Zool.* i. pl. 69. fig. 1, juv. (1832); *Reichenb. Natat., Novit.* vii. tab. cclxx. fig. 2259 (1850).

Sterna roseata, *Hodgs. in Gray's Zool. Misc.* 1844, p. 86, no. 565 [cf. *Gray*, *Nepal don.* p. 148].

Sylochelidon aurantia, *Gray*, *List B. Br. Mus.* p. 175 (1844).

Hydrocecropis aurantia, *Boie, Isis*, 1844, p. 179.
Sylochelidon seena, *Gray, Cat. M. & Birds Nepal pres. Hodgs.* p. 148 (1846), and ed. 1863, p. 78; *Licht. Nomencl. Av.* p. 98 (1854).
Seena aurantia, *Blyth, Cat. B. Mus. As. Soc.* p. 291 (1849); *Layard, Ann. & Mag. N. H.* xiv. p. 271 (1854: Ceylon, observed only); *Bp. C. R.* xlii. p. 772 (1856); *Jerdon, B. India*, iii. p. 838 (1864); *Beavan, Ibis*, 1868, p. 403 (Umballa); *Holdsw. P. Z. S.* 1872, p. 480 (not obtained in Ceylon); *Lloyd, Ibis*, 1873, p. 421 (Kattiawar); *Blyth & Wald. B. Burm.* p. 163 (1875); *W.-Ramsay, Ibis*, 1877, p. 472 (Sittang); *A. Anders. P. Z. S.* 1877, p. 807 (chick).
Potamochelidon seena, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890).

Adult male in breeding-plumage. Forehead, crown, nape, lores, and feathers beneath the eye, black with a greenish lustre; mantle and tail-coverts dark pearl-grey; primaries pale grey, frosted, passing into slate-grey near the tips and on the inner margins of the webs, the paler central "wedge" very slightly defined, shafts white; tail-feathers pearl-grey, the outer pair greyish white; under surface delicate grey, under tail-coverts pure white: bill orange-yellow; tarsi and toes orange-red in the living bird, yellow in preserved specimens. Total length 17 inches, culmen 1·8, wing 11·1, tail 8·5 to 9·5, depth of fork 5 to 6, tarsus 0·85, middle toe without claw 0·8, the claw varying greatly in length, and being sometimes 0·4 across the chord.

Female. Similar; no appreciable difference in size.

Adult after autumn moult. Forehead dull white, crown grey, orbital feathers and ear-coverts blackish; bill horn-coloured at tip. By the end of January the lores and ear-coverts have become black, and the crown and nape dark grey. The eclipse must be very short in mature birds, for the finest male in the collection, obtained at Thatone on Dec. 10th, is in full plumage, with very long tail-feathers.

Immature. Like the above, with a brownish tinge on the inner secondaries and the tail-feathers.

Young. Forehead and crown buffish white, flecked with dark ash-colour, over the eye a fairly defined white streak; feathers of the upper parts vermiculated and barred with ash-brown, and broadly edged with buffish white: bill dull yellow, horn-coloured towards the tip.

Nestling undescribed.

Hab. Rivers, estuaries, and inland waters of India from Sind, Kashmir, and Nepal to the Deccan, but uncommon in Southern India, and not yet authenticated in Ceylon; Assam, Western Yunnan, Burma, Malacca, to Singapore (*Kelham*). Eggs deposited on sand-banks.

a. Ad. sk.	Hydrabad, Sind (*H. Gould*).	India Museum [P.].
b. ♀ ad. sk.	Hydrabad, Sind, Feb. 4 (*E. A. Butler*).	Hume Coll.
c. ♀ imm. sk.	Rohri, Sind, March 29 (*W. T. Blanford*).	Hume Coll.

d. ♂ ad. sk.	River Chenab, nr. Mooltan, Dec. 2 (*A. O. Hume*).	Hume Coll.
e. ♀ ad. sk.	Madho Mehur, N. Sind, Jan. 17 (*A. O. H.*).	Hume Coll.
f. ♂ ad. sk.	Jhelum River, Nov. 22 (*A. O. H.*).	Hume Coll.
g. Ad. sk.	Kathiawar (*H. L.*).	Col. Hayes-Lloyd [P.].
h, i. ♂ ad. sk.	Sambhur, Sept. 24 (*R. M. Adam*).	Hume Coll.
k. Juv. sk.	N.W. Provinces (*S. P.*).	Capt. S. Pinwill Coll.
l, m. Ad. sk.	Kashmir, summer (*Col. Marshall*).	H. Saunders Coll.
n. ♂ ad. sk.	Harwo River, Huzara, Feb. (*W. H. Unwin*).	Hume Coll.
o. Ad. sk.	Urniwallah, Sirsa, March.	Hume Coll.
p, q. ♀ ad. et juv. sk.	Umballah, Nov. (*R. C. Beavan*).	Tweeddale Coll.
r, s. ♂ ad. et ♂ imm. sk.	Umballah, Jan. (*Dr. Scott*).	Tweeddale Coll.
t, u. ♂ ♀ ad. sk.	Dehra Doon, March (*G. King*).	Hume Coll.
v. Ad. sk.	Kumaon (*Sir A. Strachey*).	India Museum [P.].
w, x. ♂ ♀ ad. sk.	Ramnugger, Kumaon Bhabur, Feb., March (*G. King*).	Hume Coll.
y, z. ♂ ad. sk.	Sultanpur, Gurgaon District, March (*W. N. Chill*).	Hume Coll.
a'. ♀ ad. sk.	Delhi, March 19 (*C. T. Bingham*).	Hume Coll.
b', c'. ♀ ad. sk.	Futtehgurh, Oct. (*A. Anderson*).	Seebohm Coll.
d', e'. Ad. sk.	Futtehgurh, April and Sept. (*A. Anderson*).	H. Saunders Coll.
f', g'. Ad.; *h'*. Imm. sk.	Etawah, Dec.	Hume Coll.
i'. Ad. sk.	Cawnpore, May.	H. Saunders Coll.
k', l'. ♂ ad. sk.	Allahabad, Dec. (*J. Cockburn*).	Hume Coll.
m', n'. Imm. et juv. sk.	Lucknow, May, June (*Col. Way*).	Hume Coll.
o'. Ad. sk.	Oudh.	Hume Coll.
p'–s'. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
t'. Ad. sk.	Darjeeling.	H. Saunders Coll.
u', v'. ♂ ♀ ad.; *w'*. ♂ imm. sk.	Bhotan (*F. M. Montairo*).	India Museum.
x'. Ad. sk.	Bhotan Doars (*L. Mandelli*).	Hume Coll.
y'. Ad.; *z', a''*. Imm. sk.; *b'', c''*. Juv. sk.	Assam (*McClelland*).	India Museum [P.].
d'', e''. ♂ ♀ ad. sk.	Dipur Bheel, Assam, March (*A. W. Chennell*).	Hume Coll.
f''. Ad. sk.	Cachar.	Hume Coll.
g''. Juv. sk.	Dacca (*Major Tytler*).	India Museum [P.].
h'', i''. Ad.; *k'', l'*. Imm. sk.	Dacca, January.	Hume Coll.
m''. Imm. sk.	Behar.	B. H. Hodgson, Esq. [P.].
n''. ♂ ad. sk.	Patna, February.	Hume Coll.
o''. Ad. sk.	Dinapur (*S. Pinwill*).	Tweeddale Coll.
p''. Ad. sk.	Dinapur.	Hume Coll.

q'', *r''*. Imm. et juv. sk.	Sambalpur.	Hume Coll.
s'', *t''*. ♂ ad. sk.	Raipur.	Hume Coll.
u''. ♂ ad. sk.	Mhow, February.	Col. Swinhoe [P.].
v'', *w''*. ♂ ♀ ad. sk.	Khandeish, April & Dec. (*J. Davidson*).	Hume Coll.
x''. Ad. sk.	Deccan.	Col. Sykes [C.]. (Type of *S. seena*.)
y''. ♀ ad. sk.	Godavery, April (*W. T. Blanford*).	H. Saunders Coll.
z''. ♂ ad.; *a*³. ♀ imm. sk.	Bhamo, Jan. 20.	Dr. J. Anderson [C.].
*b*³. ♂ juv.; *c*³. ♀ ad. sk.	British Burma, Dec. (*Major Wardlaw Ramsay*).	Tweeddale Coll.
*d*³, *e*³. ♂ ♀ ad. sk.	Tonghoo, April 21 (*R. G. W. R.*).	Tweeddale Coll.
*f*³. ♀ imm. sk.	Tonghoo, Nov. 6 (*R. G. W. R.*).	Tweeddale Coll.
*g*³. ♂ imm. sk.	Upper Pegu, Dec.	H. Saunders Coll.
*h*³. Juv. sk.	Lower Pegu, June 30 (*E. W. Oates*).	H. Saunders Coll.
*i*³. ♂ juv. sk.	Lower Pegu, June 30 (*E. W. O.*).	Oates Coll.
*k*³. ♀ imm. sk.	Lower Pegu, Oct. 30 (*E. W. O.*).	Oates Coll.
*l*³. ♂ ad. sk.	Lower Pegu, Sept. 14 (*E. W. O.*).	Oates Coll.
*m*³, *n*³. ♂ ♀ imm.; *o*³. ♀ ad. sk.	Sittang River, Dec. (*R. G. W. R.*).	Tweeddale Coll.
*p*³. ♂ ad.; *q*³. ♀ imm. sk.	Sittang River, Feb. (*W. Davison*).	Hume Coll.
*r*³, ♀ imm.; *s*³. ♂, *t*³, *u*³. ♀ ad. sk.; *v*³. ♂ ad. sk.	Thatone, Jan. 27, Nov., Dec. (*W. D.*).	Hume Coll.
*w*³, *x*³. ♂ ad. sk.	Kadai Keglay, Thatone, Dec. (*W. D.*).	Hume Coll.
*y*³. ♀ ad. sk.	Wimpong, Thatone, Dec. (*W. D.*).	Hume Coll.
*z*³, *a*⁴. ♂ ♀. ad. sk.	Khykehto, Thatone, Feb. (*W. D.*).	Hume Coll.
*b*⁴. ♂ ad. sk.	Younzaleen Creek, Salween R., Feb. (*W. D.*).	Hume Coll.
*c*⁴, *d*⁴. ♂ ♀ ad. sk.	Moulmein, Dec. (*W. D.*).	Hume Coll.
*e*⁴. Juv. sk.	"India" (*T. C. Eyton Coll.*).	H. Saunders Coll.

6. STERNA.

	Type.
Sterna, *Linn. Syst. Nat.* i. p. 227 (1766)	S. "hirundo."
Thalasseus, *Boie, Isis*, 1822, p. 563 (pt.).	
Sternula, *Boie, Isis*, 1822, p. 563 (pt.)	S. minuta.
Actochelidon, *Kaup, Natürl. Syst.* p. 31 (1829).....	S. cantiaca.
Thalassæa, *Kaup, Natürl. Syst.* p. 97 (1829)	S. dougalli.
Pelecanopus, *Wagler, Isis*, 1832, pp. 277, 1225	S. bergii.
Onychoprion, *Wagler, Isis*, 1832, p. 277	S. fuliginosa.
Planetis, *Wagler, Isis*, 1832, p. 1222	S. fuliginosa.

	Type.
Haliplana, *Wagler, Isis*, 1832, p. 1224	S. fuliginosa.
Hydrocecropis, *Boie, Isis*, 1844, p. 179 (pt.).	
Thalassipora, *Boie*, teste *Rüpp. Syst. Uebers.* p. 140 (1845)	S. fuliginosa.
Melanosterna, *Blyth, J. A. S. Beng.* xv. p. 373 (1846).	S. anæstheta.

Range. Cosmopolitan.

*Key to the Species.**

A. Crown black in breeding-plumage.
- *a*. Belly black; bill and feet yellow ..... *melanogaster*, p. 43.
- *b*. Belly white or grey.
  - *a'*. Size larger; wing never less than 9·5 in.
    - *a''*. Forehead black to the base of the culmen.
      - *a'''*. Size smaller, wing less than 12 in.; feet red to livid.
        - a^4. Outer web of long streamers† white, inner web darkish grey; belly white ..... *forsteri*, p. 46.
        - b^4. Outer web of streamers grey, or—if whitish—not contrasting strongly with the colour of the inner web.
          - a^5. Inner webs of primaries not edged with white to their tips.
            - a^6. Upper tail-coverts white, in strong contrast with the grey of the upper parts.
              - a^7. Outer tail-feathers not much prolonged, only exceeding the next by about $\frac{1}{2}$ in. .. *albistriata*, p. 48.
              - b^7. Outer tail-feathers produced into streamers, exceeding the rext pair by more than an inch.
                - a^8. Bill and feet red.
                  - a^9. Mantle and underparts dark smoky grey .... *virgata*, p. 50.
                  - b^9. Mantle and underparts paler grey.
                    - a^{10}. Outer web of streamers very slightly grey.
                      - a^{11}. Smaller; underparts grey .... *vittata*, p. 51.
                      - b^{11}. Larger; underparts nearly white ..... *hirundinacea*, p. 52.

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* It is hoped that this Key will prove sufficient even for the identification of birds in the winter and the immature plumages; bearing in mind that any dar coloration, though diminished in those stages, is seldom wholly absent, and that the colours of the bill &c. are then duller. For further details reference must be made to the descriptions.

† For the sake of brevity the outer tail-feathers when prolonged and pointed are called *streamers*.

b^{10}. Outer web of streamers distinctly grey.
c^{11}. Dark bands next the shafts on the inner webs of primaries wider and darker; tarsus longer than the middle toe without the claw *fluviatilis*, p. 54.
d^{11}. Dark bands on inner webs of outer primaries much paler and narrower; tarsus short, not exceeding middle toe without the claw ..... *macrura*, p. 62.
b^{9}. Bill and feet blackish .. *longipennis*, p. 67.
b^{6}. Upper tail-coverts and tail grey, like the mantle; underparts dark vinaceous grey .. *albigena*, p. 69.
b^{5}. Inner webs of primaries white to the tips; upper parts very pale grey ..... *dougalli*, p. 70.
b'''. Size large: wing more than 12 inches; feet black; feathers of nape prolonged and pointed.
c^{3}. Bill black, yellowish towards the tip ..... *cantiaca*, p. 75.
d^{4}. Bill orange-yellow to red.
c^{5}. Size larger: wing about 14·5 inches ..... *maxima*, p. 80.
d^{5}. Size smaller: wing less than 13 inches.
c^{6}. Rump and tail grey, like the back ..... *media*, p. 86.
d^{6}. Rump and tail white, contrasting with the grey of the mantle.
c^{7}. Bill orange-red; angle of lower mandible far in advance of the nostril ..... *elegans*, p. 84.
d^{7}. Bill chrome-yellow; angle of lower mandible only slightly in advance of the nostril ..... *eurygnatha*, p. 85.
b''. Front of the forehead white.
c'''. Lores white.
e^{4}. Bill greenish yellow, nape-feathers long.
e^{5}. Rump dark grey, like the mantle. *bergii*, p. 89.
f^{5}. Rump white, mantle very pale grey ..... *bernsteini*, p. 96.
f^{4}. Bill black ..... *frontalis*, p. 97.

d'''. Lores black.
g^4. Rump and tail white; mantle slate-grey ..... *aleutica*, p. 98.
h^4. Rump as dark as the mantle; bill black.
g^5. Size smaller: wing about 10·5 inches; underparts white in the young.
e^6. Mantle dark smoke-grey .... *lunata*, p. 100.
f^6. Mantle umber-brown ..... *anæstheta*, p. 101.
h^5. Size larger: wing about 12 inches, mantle deep black; underparts dark brown in the young .... *fuliginosa*, p. 106.
b'. Size smaller: wing less than 8 inches.
c''. Forehead black to the base of the bill, which is also black ..... *balænarum*, p. 111.
d''. Forehead white.
e'''. Lores white ..... *nereis*, p. 112.
f'''. Lores black.
i^4. Belly white; bill chiefly yellow.
i^5. Bill tipped with black.
g^6. Upper surface of shafts of outer primaries white ..... *sinensis*, p. 113.
h^6. Upper surface of shafts of outer primaries dusky.
e^7. Only the two outer primaries darker than the inner quills.
c^8. Rump whitish, much paler than the back.... *minuta*, p. 116.
d^8. Rump grey, concolorous with mantle ..... *antillarum*, p. 122.
f^7. Greater part of three outer primaries black, in strong contrast to the inner quills. *saundersi*, p. 120.
k^5. Bill stouter, not tipped with black ..... *superciliaris*, p. 124.
k^4. Belly grey; tail slate-grey like the mantle ..... *lorata*, p. 126.
B. Crown always white; nape, orbits, and ear-coverts black; mantle of the palest grey; wings almost white ..... *melanauchen*, p. 126.
C. Crown and nape white, merely a blackish streak through the eye; upper and under parts the same tint of grey..... *trudeaui*, p. 130.

1. Sterna melanogaster.

Sterna melanogaster, *Temm. Pl. Col.* livr. 72, pl. 434 (1827); *Lesson, Traité*, p. 622 (1831); *Franklin, P. Z. S.* 1831, p. 125; *Jerdon, Madr. Journ.* xii. p. 223 (1840); *Gray, List B. Brit. Mus.* p. 179 (1844); * *Reichenb. Natat.* tab. xx. fig. 281 (1848); *Burges*

* Reichenbach, Schlegel, and others spell the specific name *melanogastra*; but as this appears to have been done on no fixed principle, I have placed all the references under *melanogaster*, as being both correct and convenient.

P. Z. S. 1855, p. 184 (Bheena, nesting described); *Schlegel, Mus. P.-B.*, Sternæ, p. 21 (1863); *Gould, B. Asia*, vii. pl. 70 (1867); *Schl. & Pollen, Rech. Madagasc., Ois.* p. 147 (1868: I. of Réunion); *Holdsw. P. Z. S.* 1872, p. 481 (not obtained in Ceylon); *Blyth & Wald. B. Burm.* p. 163 (1875); *Saunders, P. Z. S.* 1876, p. 645 (revision); *Hartl. Vög. Madag.* p. 387 (1877: Réunion); *Hume & Davison, Str. F.* vi. p. 492 (1878: Tenasserim); *Davidson & Wenden, op. cit.* vii. p. 93 (1878: Deccan); *V. Ball, tom. cit.* p. 233; *J. R. Cripps, tom. cit.* p. 314 (E. Bengal); *Hume, Str. F.* viii. p. 116 (1879: List); *Barnes, op. cit.* p. 460 (S. Afghanistan); *Legge, B. Ceylon*, p. 1006 (1880: never obtained in Ceylon); *Salvin, Cat. Strickl. Coll.* p. 623 (1882; Malacca); *W. Davison, Str. F.* x. p. 419 (1883: S.W. Mysore); *Oates, B. Brit. Burm.* ii. p. 424 (1883); *Hume, Str. F.* xi. p. 350 (1888: Manipur; Cachar; Brahmaputra); *Tristram, Cat. Coll. B.* p. 9 (1889); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 310 (1890).

Sterna javanica, *Horsf. Zool. Research. Java, Gen. Cat.* p. 8 (1824: not in *Tr. Linn. Soc.* xiii. 1820, which = Hyd. hybrida); *Blyth, Cat. B. Mus. As. Soc.* p. 292 (1849); *Layard, Ann. & Mag. N. H.* xiv. p. 271 (1854: Ceylon, not obtained); *Irby, Ibis*, 1861, p. 247 (Oudh & Kumaon); *Jerdon, B. India*, iii. p. 840 (1864); *Bulger, Ibis*, 1869, p. 170 (Sikkim); *Hume, Str. Feath.* 1873, p. 282; *id. Nests & Eggs Ind. B.* p. 652 (1875); *W. Ramsay, Ibis*, 1877, p. 472 (Sittang River); *J. Anders. Exp. W. Yunnan*, p. 694 (1878).

Sterna acuticauda, *J. E. Gray, Hardw. Ill. Ind. Zool.* i. pl. 70. fig. 3 (1832: Cawnpore); *Sykes, P. Z. S.* 1832, p. 171; *Reichenb. Natat., Novit.* vii. tab. cclxx. fig. 2257 (1850).

Sternula melanogaster, *Boie, Isis*, 1844, p. 183.

Hydrochelidon melanogastra, *Gray, Gen. B.* iii. p. 660 (1846); *Licht. Nomencl. Av.* p. 98 (1854); *Bp. C. R.* xlii. p. 773 (1856).

Sternula melanogastra, *Blas. J. f. O.* 1866, p. 74.

Sternula minuta, *Beavan, Ibis*, 1868, p. 403 (Moulmein; immature).

Sternula jerdoni, *Beavan, Ibis*, 1868, p. 403 (Moulmein).

Hydrochelidon javanica (part.), *Gray, Hand-l. B.* iii. p. 122, no. 11073 (1871).

Pelodes javanica, *Adam, Str. F.* ii. p. 440 (1874: Chota Nagpur rivers); *Hume, op. cit.* iii. p. 193 (1875: Upper Pegu).

Adult male in breeding-plumage. Centre of the forehead, crown, and nape black; lores white; neck grey; mantle grey, with a slight brownish tinge on the inner secondaries; outer primaries pale pearl-grey on the outer webs, with a slightly darker line inside the white shafts, and nearly white margins to the inner webs; the succeeding primaries gradually darkening on their inner margins; tail pearl-grey, outer webs of the streamers white; under tail-coverts, vent, and abdomen black; breast grey; under wing and throat white: "bill bright orange-yellow; iris brown" (*Cripps*); tarsi and toes dark orange-yellow. Total length 12·8 inches, culmen 1·6, wing 8·75, tail 6·25, depth of fork 3·8, tarsus 0·5, middle toe with claw 0·7.

Female. Similar to the male.

Adult in winter. Forehead and crown grey, streaked with black, which becomes confluent round the eye: underparts greyish white; bill horn-coloured at the tip. The eclipse lasts only a short time.

Immature. Like the above, with a browner tinge to the upper feathers, and an ash-grey band along the edge of the carpal joint; bill and feet duller yellow.

Young. Upper parts variegated grey and buff, with blackish bars and striations, and stone-white margins to the flight- and tail-feathers.

Hab. Rivers and inland waters, from Southern Afghanistan in the west to Bhotan on the east, and throughout India down to Tranquebar; ascribed to, but not yet authenticated in Ceylon; eastward, throughout Burma down to Moulmein. Ascribed to Cochin-China by Dr. Tiraud. Once in the Island of Réunion after a tempest, *teste* Schlegel.

In the coloration of the underparts this species seems to approach *Hydrochelidon*, but it is not a Marsh-Tern; the tail is long and pointed, and the webs of the toes are not much indented. The eggs are deposited on the sand, close to the water.

a, *b*. Ad. sk.	Ranepoor, Upper Sind, Feb. 1885 (*H. Gould*).	India Museum [P.].
c. Imm. st.	Roree, Sind.	Hume Coll.
d. ♂ ad. sk.	Kussmore, Indus, Oct. (*A. O. H.*).	Hume Coll.
e. ♀ ad. sk.	Sambhur, Oct. (*R. M. Adam*).	Hume Coll.
f. Ad. sk.	Punjab, April.	Hume Coll.
g. Ad. sk.	Lahore.	Tweeddale Coll.
h, *i*. Ad. sk.	Sirsa District.	Hume Coll.
k–*o*. ♂ ♀ ad. sk.	Gurgaon, Delhi, Jan., Feb. (*W. N. Chill*).	Hume Coll.
p. ♀ juv. sk.	Delhi, May 14 (*C. T. Bingham*).	Hume Coll.
q. ♂; *r*. ♀ ad. sk.	Kumaon Bhabur, March (*G. King*).	Hume Coll.
s. Ad. sk.	Oudh, Feb.	Hume Coll.
t, *u*. Ad.; *v*. Imm. sk.	Etawah, Dec.	Hume Coll.
w, *x*. ♀ ad. sk.	Futtehgurh, May (*A. Anderson*).	Seebohm Coll.
y. Ad. sk.	Nepal (*B. Hodgson*).	India Museum [P.].
z. Ad. sk.	Sikhim Terai, Jan. (*L. Mandelli*).	Hume Coll.
a'. Ad. sk.	Bhotan Doars, Dec. (*L. M.*).	Hume Coll.
b'. Imm. sk.	Assam (*Col. Sykes*).	India Museum [P.].
c'. ♀ ad. sk.	Dibrughur (*J. R. Cripps*).	Hume Coll.
d'. ♂ ad. sk.	Kalleejung, Brahmaputra R., Dec. (*W. Davison*).	Hume Coll.
e'. ♂ ad. sk.	Julpigoree, Bengal, May (*H. J. Elwes*).	H. Saunders Coll.
f'. Ad. sk.	Dacca.	Hume Coll.
g'. Imm. st.; *h'*. Ad. sk.	Behar.	B. H. Hodgson, Esq. [P.].
i'. Imm. sk.	Dinapur (*S. Pinwill*).	Tweeddale Coll.
k'. Imm. sk.	Dinapur, Feb. (*W. E. Brooks*).	Hume Coll.
l'. ♀ ad.; *m'*. ♂ juv. sk.	Raipur, Central Provinces, Jan.	Hume Coll.
n'. Ad. sk.	Deccan (*Col. Sykes*).	India Museum [P.].
o', *p'*. ♂ ad. sk.	Bhamo, Jan. 20.	Dr. J. Anderson [C.].
q'. ♂ imm. sk.	Rangoon District, Dec. (*R. G. W. R.*).	Tweeddale Coll.
r'. Ad. sk.	Pegu, Dec.	W. T. Blanford, Esq. [P.].

s', *t'*. ♂ ♀ ad.; *u'*. ♀ imm. sk.	Lower Pegu, Oct., Nov. (*E. W. O.*).	Oates Coll.
v', *w'*. ♂ ♀ ad.; *x'*. ♂ juv. sk.	Tonghoo, May (*R. G. W. R.*).	Tweeddale Coll.
y', *z'*. ♂ ♀ ad. sk.	Tonghoo, Dec. (*R. G. W. R.*).	Tweeddale Coll.
a''. ♀ ad. sk.	Sittang Valley, Dec. (*R. G. W. R.*).	Tweeddale Coll.
b'', *c''*. ♂ ♀ ad. sk.	Sittang River, Feb. (*W. Davison*).	Hume Coll.
d''–i''. ♂ ♀ ad.; *k''–n''*. ♂ ♀ imm. sk.	Thatone, Oct.–Dec. (*W. D.*).	Hume Coll.
o''. ♀ ad. sk.	Thayetmyo, Dec.	H. Saunders Coll.
p'', *q''*. ♂ ad. sk.	Houngthraw, Salween River, Feb. 28 (*W. Limborg*).	Tweeddale Coll.

2. Sterna forsteri.

Common Tern, var., *Lath. Gen. Syn.* iii. pt. 2, p. 362 (1785: Dr. Forster; Hudson Bay).

Sterna hirundo, *Sw. & Rich. Faun. Bor.-Amer., Birds*, p. 412 (1831: Saskatchewan River).

Sterna forsteri, *Nutt. Man. Orn.* ii. p. 274, footnote (1834); *Lawr. Ann. Lyc. N. Y.* vi. p. 222 (1852: California); *Baird, Cass. & Lawr. B. N. Amer.* p. 862 (1858); *Baird, Cat. N. Amer. B.* no. 691 (1859); *Coues, Proc. Philad. Acad.* 1862, p. 544; *id. Ibis*, 1864, p. 390 (Dueñas, Guatemala); *Salvin, op. cit.* 1866, p. 199 (same loc.); *Coues, Pr. Philad. Acad.* 1866, p. 99 (Arizona); *Blas. J. f. O.* 1866, pp. 74, 78; *Coues, Pr. Essex Inst.* v. p. 308 (1868: New England); *Elliot, New & Unfig. B. N. Amer.* i. *Introd.*, tail figd. (1869); *Gray, Hand-l. B.* iii. p. 118, no. 11026 (1871); *Scl. & Salv. P. Z. S.* 1871, p. 569 (revision); *id. Nomencl. Av. Neotrop.* p. 147 (1873); *Coues, Pr. Philad. Acad.* 1871, p. 44 (North Carolina); *id. Key N. Amer. B.* p. 321 (1872); *id. Check-list*, no. 566 (1873); *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Coues, B. N.-West*, p. 676 (1874); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 318 (1874: Mazatlan); *Hensh. Ann. Lyc. N. Y.* xi. p. 13 (1874: Utah); *id. Rep. Zool. Expl.* 100*th Merid.* p. 486 (1875); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 51 (1876: Tehuantepec); *Saunders, P. Z. S.* 1876, p. 651 (revision); *Ridgw. Rep. Surv.* 40*th Par.* p. 639 (1877); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 68 (1878: Galveston; breeds); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53, no. 685 (1881); *Coues, Check-l. N. Amer. B.* p. 123, no. 798 (1882); *Stearns & Coues, New Engl. B.-Life*, p. 369 (1883); *Coues, Key N. Amer. B.* 2nd ed. p. 763 (1884); *Baird, Brew., & Ridgw. Water-B. N. Amer.* ii. p. 292 (1884); *Drew, Auk*, 1885, p. 18 (Colorado up to 6000 ft.); *Agersborg, t. c.* p. 289 (Dakota); *A. O. U. Check-l.* p. 94 (1886); *Ridgw. Man. N. Amer. B.* p. 42 (1887); *Seton, Auk*, 1886, p. 147 (Manitoba; breeding); *Scott, op. cit.* 1887, pp. 274, 278, 279 (Florida); *Townsend, Pr. U.S. Nat. Mus.* x. p. 192 (1888: N. California, breeds); *Beckham, t. c.* p. 644 (Corpus Christi, Texas); *Brewster, Auk*, 1889, p. 66 (New England); *Pindar, t. c.* p. 31 (Kentucky; breeds); *Shick, op. cit.* 1890, p. 327 (New Jersey); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 354 (1890); *Thomps. Pr. U.S. Nat. Mus.* xiii. p. 469 (1890: Manitoba, breeds);

Shufeldt, Auk, 1891, p. 366 (fossil remains: Oregon); *Rhoads, Pr. Philad. Acad.* 1892, p. 101 (Texas).

Sterna havelli, *Aud. Orn. Biog.* v. p. 122 (1839); *id. B. N. Amer.* pl. 409. fig. 1; *id. Synop.* p. 318 (1839); *id. B. N. Amer.* 8vo ed. viii. p. 103, pl. 434 (1844); *Gray, Gen. B.* iii. p. 659 (1846); *Baird, Cass., & Lawr. B. N. Amer.* p. 861 (1858); *Coues, Pr. Philad. Acad.* 1862, p. 543 (refers it to *S. forsteri*); *Gray, Hand-l. B.* iii. p. 118, no. 11028 (1871).

Gelochelidon havelli (*Aud.*), *Boie, Isis*, 1844, p. 187; *Bp. C. R.* xlii. p. 772 (1856).

Adult male in breeding-plumage. Forehead, upper half of lores, crown, and nape deep sooty black; the nuchal feathers not prolonged into a crest; mantle pearl-grey; tips of secondaries white; primaries pale grey when new and frosted, blackish when worn, shafts white, webs on both sides grey, the "wedge" greyish white, inner margins dark grey; rump white; tail-feathers grey, except the streamers, which have white *outer* webs; underparts pure white; bill rather stout, orange-yellow, blackish for nearly its terminal half, the extreme tips yellowish; tarsi and toes orange-red. Total length 14 to 15 inches, culmen 1·7, wing 10·5, tail 7 to 8, depth of fork about 4·25, tarsus 1, middle toe with claw 1·1.

Female. Similar, perhaps a trifle smaller, with less prolonged streamers.

Adult in winter. Similar, except that the head and neck are greyish white, with black streaks, which become confluent before and behind the eye; tail-streamers less prolonged; bill blackish; feet yellowish brown.

Immature. Like the above, but with a varying amount of dark brown on the inner secondaries and rectrices.

Young even browner, and tawny on the nape.

Downy nestling. Warm dark buff, thickly marked with black; underparts lighter, but decidedly darker than in most nestlings of allied Terns.

Hab. Greater part of North America, from the Fur Countries to Southern Texas (breeding); Florida, Mexico, and Guatemala in winter; once obtained at sea between 200–300 miles from Pernambuco (Salv.-Godm. Coll.). Breeds in grassy marshes.

a. ♀ pull. sk.	Cobb's Isl., Virginia, July (*W. Brewster*).	H. Saunders Coll.
b. Pull. sk.	Repaza Marsh, Va., July (*R. Ridgway*).	H. Saunders Coll.
c. ♂ ad. sk.	Cobb's Isl., Va. (*R. Ridgway*).	H. Saunders Coll.
d. ♂ ad.; *e.* Pull.; *f, g.* ♂, *h.* ♀ juv. sk.	Cobb's Isl. Va., Aug. (*H. W. Henshaw*).	Salvin-Godman Coll.
i, k. Ad. sk.	Caper's Isl., S. Carolina, April, May (*J. H. Batty*).	Salvin-Godman Coll.
l, m. Ad. sk.	Grass Lake, Lake Co., Illinois, June (*E. W. Nelson*).	Salvin-Godman Coll.
n. ♂ ad. sk.	Cedar Keys, Florida, Feb. (*H. W. Henshaw*).	Salvin-Godman Coll.

o, p. ♂ ad.; *q–s.* ♀ ad.; *t, u, v.* Imm. sk.	Tarpon Springs, Florida, Sept. & Jan. (*W. E. D. Scott*).	Salvin-Godman Coll.
w, x. ♂ ♀ ad. sk.	Corpus Christi, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
y, z. ♂ ad.; *a', b'.* ♀ ad.; *c'–e'.* ♂ imm. sk.	Corpus Christi, Texas, Oct., Nov. (*F. B. A.*).	Salvin-Godman Coll.
f', g'. ♂ ♀ ad. sk.	Brownsville, Texas, May (*F. B. A.*).	Salvin-Godman Coll.
h'. Ad. sk.	San Antonio, Texas, June (*H. E. Dresser*).	Salvin-Godman Coll.
i'. Ad.; *k'.* Juv. sk.	Koshkonong Lake, South Wisconsin, June (*Th. Kumlien*).	Salvin-Godman Coll.
l'. ♀ juv. sk.	Koshkonong Lake, South Wisconsin (*Th. Kumlien*).	H. Saunders Coll.
m'. ♂ ad. sk.	Utah Lake, July (*Smithsonian Inst.*).	Salvin-Godman Coll.
n', o'. ♂ ad. sk.	Washoe Lake, Nevada, May (*Henshaw*).	Salvin-Godman Coll.
p'. ♂ ad. sk.	California (*F. Gruber*).	H. Saunders Coll.
q'. ♂ ad. sk.	Oakland, California, Feb. (*Henshaw*).	Salvin-Godman Coll.
r'. ♂ ad.; *s', t', u'.* ♂ ♀ imm. sk.	San Diego, California, Dec. (*Henshaw*).	Salvin-Godman Coll.
v'. ♂ juv. sk.	La Paz, Lower California, Jan. (*Forrer*).	H. Saunders Coll.
w', x'. Ad. sk.	West Coast, Mexico.	H. Saunders Coll.
y'. ♂ juv. sk.	Tehuantepec, Feb. (*Prof. F. Sumichrast*).	H. Saunders Coll.
z'. ♀ imm. sk.	Lake of Dueñas, Guatemala, Oct. 28 (*O. S.*).	Salvin-Godman Coll.
a''. Imm. sk.	At sea, 200–300 miles off Pernambuco.	Salvin-Godman Coll.

3. Sterna albistriata.

Sterna antarctica, *Wagl. Isis*, 1832, p. 1223 (*ex J. R. Forster, MS.*; *nec Lesson*, 1831, which=S. anæstheta); *Forst. Descr. Anim.* p. 107 (1844); *Gray, Voy. Ereb. & Terr., Birds*, p. 19 (1844); *id. Gen. B.* iii. p. 659 (1846); *Finsch, J. f. O.* 1870, p. 367; *id. op. cit.* 1872, p. 254; *id. op. cit.* 1874, p. 205; *Hutton, Cat. N. Zeal. B.* p. 42 (1871); *Buller, Bds. N. Zeal.* p. 283 (1873); *Sharpe, Voy. Ereb. & Terr., Birds*, App. p. 32 (1875); *Saunders, P. Z. S.* 1876, p. 646 (revision); *Buller, Man. B. N. Zeal.* p. 81 (1882); *id. B. N. Zeal.* 2nd ed. ii. p. 70, pl. xxx. fig. sup. (1885); *Tristram, Cat. Coll. B.* p. 8 (1889); *Forbes, Ibis*, 1893, p. 530 (Chatham Is.).

Hydrochelidon albistriata, *Gray, Voy. Erebus & Terror, Birds*, p. 19, pl. 21 (1844)*; *id. Gen. B.* iii. p. 660 (1846); *Reichnb. Natat.* tab. xxi. fig. 817 (1848); *Ep. C. R.* xlii. p. 773 (1856); *Gray, Hand-l. B.* iii. p. 122 (1871).

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* The specific name was originally printed *albostriata* and was subsequently altered to *albistriata* by Gray himself.

Hydrocecropis antarctica (*Forst.*), *Boie, Isis*, 1844, p. 179.
Sternula antarctica (*Forst.*) ?, *Bp. C. R.* xlii. p. 773, no. 141 (1856).
Sterna cinerea, *Ellman, Zoologist*, 1861, p. 7473.
Sterna breviunguis, *Pelz. Reise Novara, Vög.* p. 152 (1865: New Zealand, in Vienna Mus.).
Hydrochelidon hybrida, *Finsch, J. f. O.* 1867, p. 347.

Adult male in breeding-plumage. Forehead, lores, crown, and nape deep black; from the gape a broad streak of white passes under the eye and is continued to the nape; mantle dark pearl-grey; secondaries very slightly edged with white; outer primaries with white shafts and pale grey margins to the inner webs; rump white; tail-feathers dark pearl-grey except the outer pair of feathers, which are nearly white on the upper parts; under tail-coverts greyish white; breast and abdomen pearl-grey: bill bright yellow; irides black; tarsi and toes bright yellow. Total length 12 inches, culmen 1·25, wing 10, tail 4·5–5, depth of fork 1·75 at most, tarsus 0·65, middle toe and claw 0·9.

Female. Similar, with perhaps less prolongation of the outer tail-feathers.

Adult in winter. The head is probably greyish for a brief period.

Immature. Similar, with a dark band on the upper wing-coverts, which is retained until after the black head is assumed; the upper parts dull grey.

Young. Head ash-grey mottled with black; upper wing-coverts, inner secondaries, and tail-feathers with subterminal ash-brown markings: bill ochraceous yellow, blackish towards the tip; feet dull yellow: otherwise like the immature.

Hab. New Zealand, chiefly the South Island; once in Norfolk Island. Frequents rivers and plains, and deposits eggs on the bare ground.

The strongly contrasted white stripe below the eye and the somewhat short and slightly pointed tail doubtless led Gray to place this species in the genus *Hydrochelidon*; but it is not a Marsh-Tern, its toes have not indented webs, and it is merely a somewhat specialized link in the interesting chain to which the three following species of true Sea-Terns belong.

a. Ad. st.	New Zealand.	P. Earl, Esq. [C.]. (Type of species.)
b, c. Ad. st.	Port Cooper, South Island, New Zealand.	F. Strange, Esq. [C.].
d, e. ♂, *f.* ♀ ad.; *g.* ♂, *h, i.* ♀ juv. sk.	Otago, N. Zealand, Sept.	Hume Coll.
k. Ad. sk.	Otago, N. Z.	H. Saunders Coll.
l. ♂ ad. sk.	Waimakariri, N. Z., Oct.	H. Saunders Coll.
m. Juv. sk.	Cape Campbell, N. Z., 41° 45′ S. lat.	H. Saunders Coll.
n. Juv. sk.	Wellington, N. Z.	H. Saunders Coll.
o. Ad. sk.	Norfolk Island, 28° S.	H. Saunders Coll.

4. Sterna virgata.

? Southern Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 365 (1785: Christmas "Island" [? Christmas Sound, Kerguelen Id.]); *id. Gen. Hist.* x. p. 126 (1824).

? Sterna australis, *Gm. Syst. Nat.* i. p. 608 (1788); *Lath. Ind. Orn.* ii. p. 809 (1790); *Bonn. Enc. Méthod.* i. p. 97 (1790); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 162 (1825); *Gray, Gen. B.* iii. p. 659 (1846).

? Planetis australis, *Boie, Isis*, 1844, p. 189.

Sterna macrura (part.), *Gray, List Anseres Brit. Mus.* p. 178, *f, g* (1844: Kerguelen Id.).

Sterna meridionalis (*nec Brehm, nec Peale, nec Cassin*), *Layard, Ibis*, 1867, p. 459 (Crozette Is., in Coll. B. M.).

Sterna virgata, *Cab. J. f. O.* 1875, p. 449; *Cab. & Reichen. J. f. O.* 1876, p. 328 (Kerguelen); *Saunders, P. Z. S.* 1876, p. 646 (revision Sterninæ); *id. op. cit.* 1877, p. 794; *id. Journ. Linn. Soc.* xiv. p. 402 (1878); *Sharpe, Rep. Trans. Venus, Phil. Tr.* clxviii. p. 112 (1878: Kerguelen); *Saunders, t. c.* p. 164 (eggs); *id. Voy. H.M.S. 'Challenger,'* ii. *Birds*, p. 133 (1881: Kerguelen).

Sterna vittata, *Coues, Bull. U.S. Nat. Mus.* ii. p. 17 (1875 [*nec Gm., nec Pelzeln*], Kerguelen); *Coues & Kidder, op. cit.* iii. p. 11 (1876).

Adult in breeding-plumage. Similar to the previous species, but darker on the underparts, so that the white moustachial streak stands out in stronger contrast between the grey chin and the black cap; webs of primaries darker, especially the outermost; shafts dull white to ash; tail-feathers more prolonged and pointed, and with the entire outer webs of the streamers distinctly grey: bill blood-red (in the living bird); tarsi and toes orange-red, fully webbed. Total length 13 inches, culmen 1·2, wing 10, tail 6·25, depth of fork 3, tarsus 0·65, middle toe and claw 0·9, the claw short and stout.

In winter, or during the moult, the head is mottled with grey, and the bill, feet, &c. are yellowish to livid brown.

Young. Forehead brownish grey, crown and nape mottled with black; feathers of upper parts broadly tipped with blackish brown, with subterminal spots of dull white on the inner secondaries; underparts greyish, flecked with brown. In fledglings both upper and under parts are marked with warm brown; in fact the characteristic of the young of this species is the darkness of all the markings.

Hab. Kerguelen Island, and probably Heard Island; also the Crozettes. A single egg is deposited among stones on the bare ground, at a moderate distance from the beach.

a. ♂ ad.; *b.* ♀ juv.; *c.* Ad. sk.	Kerguelen Island, 50° S. lat., Southern Indian Ocean.	Antarctic Exped.
d. Ad.; *e.* Juv. sk.	Royal Sound, S.E. Kerguelen (*Rev. A. E. Eaton*).	Transit of Venus Exped.
f. Ad. sk.	Royal Sound, S.E. Kerguelen (*Dr. Kidder, U.S. Exped.*).	H. Saunders Coll.
g, h. Ad.; *i.* Imm. sk.	Christmas Harbour, N.W. Kerguelen.	H.M.S. 'Challenger' Exped.

k. Juv. sk.	Betsey Cove, Kerguelen.	H.M.S. 'Challenger' Exped.
l. Ad. sk.	Crozette Islands, 46° S. (*E. L. Layard*).	Salvin-Godman Coll.
m. Ad. sk. (spirit).	Kerguelen.	H.M.S. 'Challenger' Exped.

5. Sterna vittata.

Wreathed Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 359 (1785: "Christmas Island," ? Christmas Harbour, Kerguelen Island).

Sterna vittata, *Gm. S. N.* i. p. 609 (1788); *Lath. Ind. Orn.* ii. p. 807 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 166 (1819); *Gray, Gen. B.* iii. p. 659 (1846); *Pelzeln, Reise Novara, Vög.* p. 152 (1865: adult, St. Paul's Island); *Saunders, P. Z. S.* 1876, p. 647 (revision Sterninæ); *id. op. cit.* 1877, p. 795; *Sharpe, Phil. Tr.* clxviii. p. 113 (1878: *Rep. Trans. Venus*; Kerguelen); *Saunders, Journ. Linn. Soc.* xiv. p. 402 (1878, distribution); *id. Voy. H.M.S. 'Challenger,'* ii. *Birds*, p. 134 (1881: Tristan da Cunha Group and Kerguelen Id.).

Sterna coronata, *Bonn. Enc. Méth.* i. p. 95 (1790) (*ex Latham, suprà*).

Hydrocecropis coronata, *Boie, Isis*, 1844, p. 179.

Sterna macrura (part.), *Gray, List Anseres Brit. Mus.* p. 178 (1844: spec. *e*, Kerguelen).

Hydrocecropis vittata, *Boie, Isis*, 1844, p. 179.

Sterna melanorhyncha (part.), *Gould, Handb. B. Austr.* ii. p. 398 (1865: as regards Macgillivray's examples from St. Paul's I.); *Pelzeln, Reise Novara, Vög.* p. 154 (juv., St. Paul's I.).

Sterna sancti-pauli, *Gould, Handb. B. Austr.* ii. p. 399 (1865: St. Paul's I.).

Sterna melanoptera, *Vélain, Arch. Zool. exp. et gén.* vi. p. 53 (1877: St. Paul's I.).

Adult in breeding-plumage. Very similar to the preceding species, but larger and generally of a paler grey; the white moustachial streak prolonged to the nape; tail nearly white, only the outer webs being of the palest grey; shafts of primaries pure white: bill and feet cherry-red in the living bird. Total length 16 inches, culmen 1·45, wing 10·5, tail 7·5–8, depth of fork 4·5–5, tarsus 0·7, middle toe and claw 0·95; claws stout and short, or worn by attrition on the volcanic rock.

Adult in winter. Forehead and crown mottled grey and black; otherwise like the above.

Immature. Similar to the above, but underparts white, a faint greyish band on the upper wing-coverts, and the outer webs of tail-feathers distinctly grey: bill and feet dull livid red to blackish.

Young. Paler than in *S. virgata* and white on the abdomen; the upper parts spangled and barred with whitish buff and black, much as in the next species *S. hirundinacea*.

Although a stouter and generally larger bird, *S. vittata* is not unlike the Arctic Tern, *S. macrura*, which sometimes wanders far South, but the former may always be distinguished by the greater breadth of the grey line on the primaries inside the shaft.

Hab. St. Paul's and Amsterdam Islands (breeding); Kerguelen; Tristan da Cunha and Inaccessible Islands, and the Atlantic to the vicinity of Brazil. M. Vélain describes this species as depositing its egg in the most inaccessible places in the crater at St. Paul's Island. There can be no doubt that Latham's locality "Christmas Island" (where no Tern except *S. fuliginosa* was found on Cook's voyage) was a mistake for Christmas Harbour, Kerguelen Island, where Cook landed.

a. Ad. sk.	Kerguelen Island.	Antarctic Exped.
b. Ad. sk.	Royal Sound, Kerguelen Island.	H.M.S. 'Challenger' Exped.
c. ♂ ad. sk.	St. Paul's Isl., c. 46° S., Jan. 1853 (*J. Macgillivray*).	Gould Coll. (Type of *S. sanctipauli*, Gould.)
d, e. ♂ ad.; *f.* Juv.; *g.* ♂ juv. sk.	St. Paul's Isl. (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake' [P.].
h. Imm. sk.	38° S. lat., 0° 57′ W. long. (*J. M.*).	Voy. H.M.S. 'Rattlesnake' [P.].
i. ♀ imm. sk.	36° S. lat., 6° 30′ E. long., Nov. 20, 1852 (*J. M.*).	Voy. H.M.S. 'Rattlesnake' [P.].
k. Ad. sk.	Inaccessible Isl. near Tristan da Cunha.	H.M.S. 'Challenger' Exped.
l. Imm. sk.	At sea, 40° S. lat., 20° E. long. (*G. Dowker*).	Hume Coll.
m. Ad. sk.	At sea, between St. Helena and Ascension, April (*don. E. Hargitt*).	H. Saunders Coll.
n. ♂ juv. sk.	At sea, 147 m. S.E. of Imbituba, S. Brazil, July (*H. M. Harrison, R.N.*).	H. Saunders Coll.
o, p. ♂ ad. st.	Cape of Good Hope (sea).	Sir A. Smith [P.].

6. Sterna hirundinacea.

Sterna hirundinacea, *Less. Traité*, p. 621 (1831: Santa Catharina, Brazil; *cf. Puch. Rev. Zool.* 1850, p. 539 *); *Saunders, P. Z. S.* 1876, p. 647 (revision); *id. op. cit.* 1877, p. 796, and *Voy. H. M. S.* '*Challenger*,' ii. *Birds*, p. 135 (1881: Magellan Strs.); *Durnf. Ibis*, 1877, p. 43 (Chuput, Patagonia); *id. op. cit.* 1878, p. 404 (Tombo, immense breeding colony); *Sharpe, P. Z. S.* 1881, p. 16 (Magellan Straits); *Saunders, P. Z. S.* 1882, p. 522 (Peru & Chile); *A. Milne-Edwards, Faun. régions Austr.* ch. iv. p. 34 (1882); *Mac-Farlane, Ibis*, 1887, p. 208 (Chimbote, Peru, 9° S. lat.); *Taczan. Orn. Pérou*, iii. p. 440 (1886); *Scl. & Hudson, Argent. Orn.* ii. p. 196 (1889); *Oustalet, Miss. Sc. Cap Horn*, p. 183 (1891).

Sterna hirundo, *Neuwied, Beitr.* iv. p. 865 (1833: Rio de Janeiro).

? Sterna minuta [lapsus calami ?], *Lesson, H. N. Mamm. et Ois.* p. 155 (1834: Falkland Islands).

Sterna acutirostris, *Tsch. Wiegm. Arch.* 1843, pt. I, p. 389; *id. Faun. Per., Aves*, pp. 53, 306 †; *Gray, Gen. Birds*, iii. p. 659 (1846).

Hydrocecropis hirundinacea, *Boie, Isis*, 1844, p. 179 (*ex Curier*).

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* Type in Paris Museum examined.

† Type in Neuchâtel Museum examined.

Sterna antarctica, *Peale, U.S. Expl. Exp.* p. 280 (1848) [*nec Lesson, nec Wagler, nec Forst.*]; *Phil. et Landb. Cat. Av. Chil.* p. 49 (1868).
Sterna wilsoni, *Burm. Syst. Ueb.* iii. p. 451 (1856); *Pelz. Orn. Bras.* p. 325 (1871: Rio de Janeiro).
Sterna meridionalis, *Cassin* (*nec Brehm*), *U.S. Expl. Exp.* p. 385 (1858); *Schleg. Mus. P.-Bas*, Sternæ, p. 15 (1863); *Blas. J. f. O.* 1866, p. 74.
Sterna cassinii, *Scl. P. Z. S.* 1860, p. 391; *Abbott, Ibis*, 1861, p. 166; *Pelz. Reise Novara, Vög.* p. 153 (1865: Chiloe Island, Chile); *Scl. & Salv. P. Z. S.* 1871, p. 570 (revision); *Gray, Hand-l. B.* iii. p. 118, no. 11025 (1871); *Cunningh. Str. Magell.* pp. 74, 404 (1871); *Scl. & Salv. P. Z. S.* 1873, p. 147; *üd. Nomencl. Av. Neotrop.* p. 147 (1873).
? Sterna virgata, *Pagenstecher, Ber. Naturhist. Mus. zu Hamburg*, 1884, p. 25 (1885), and *Neumayer, Deutsch. Exped.* Bd. ii. p. 265 (1890: South Georgia Is.).

Adult in breeding-plumage. Forehead, greater part of lores, crown, and nape black, bordered by a white streak from the gape backwards; hind neck and mantle pale pearl-grey, the secondaries and upper primaries broadly margined with white; rump and tail-feathers white, with a grey tinge on the outer webs; underparts pale pearl-grey, passing into white on the vent: iris black; bill and legs vermilion-red. Total length 16–16·5 inches, culmen 1·75, wing 11·8, tail 7, depth of fork about 4, tarsus 0·8, middle toe with claw 1·1; webs a trifle more indented than in *S. vittata*, and nails longer.

Adult in winter. Forehead and crown mottled with white, and underparts nearly white, but the eclipse only lasts a short time.

Immature. Similar to above, but with more grey on the tail-feathers, and the outer webs of the primaries are darker grey.

Young birds show a conspicuous brownish bar along the upper wing-coverts *, and the mantle is spangled and barred with blackish-brown and white (warm buff in fledglings): bill blackish, feet reddish yellow.

Nestling. Upper parts olive-brown, thickly mottled with umber; throat nearly black, remaining underparts dull white: "feet orange" (*J. Young*).

Hab. South America—on the East side from Bahia downwards, breeding from Rio de Janeiro to the Straits of Magellan, the Falkland Islands, the South Georgia and South Shetland Islands, and the land to the south of Cape Horn; on the West side, up to Chimbote, Peru. Breeds in large colonies.

a. Juv. sk.	Bahia, Brazil (*Dr. Luschnath*).	Salvin-Godman Coll.
b. Imm. sk.	Bahia, Brazil (*Dr. Wucherer*).	H. Saunders Coll.
c–f. ♀ ad.; *g, h, i.* ♂ ♀ juv. sk.	Rio de Janeiro, July–Aug. (*H. M. Harrison, R.N.*).	H. Saunders Coll.

* The affinities of *S. hirundinacea* are, on the whole, with the three preceding species, but the breadth of the band on the upper wing-coverts of the young bird indicates an approach to *S. fluviatilis* and allies, of the Northern hemisphere.

k–o. Ad.; *p, q.* Pull.; *r.* Juv. sk.	Rio de Janeiro, May 30–June 26 (*J. Young*).	H. Saunders Coll.
s, t. Ad. sk.	Santa Catharina, S. Brazil (*Rogers*).	Salvin-Godman Coll.
u. ♂ juv. sk.	80 miles S. of Bahia Blanca, Jan. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
v. ♂ ad.; *w.* Imm. sk.	Chuput, E. Patagonia, Nov.	H. Durnford, Esq. [C.].
x. ♂ ad. sk.	Port Santa Cruz, E. Patagonia (*J. M. Campbell*).	H. Saunders Coll.
y, z, a′. ♂ ♀ ad. st.; *b′.* ♂ ad. sk.	East Falkland Island.	Antarctic Exped.
c′. Ad. sk.	Falkland Islands (*Capt. Abbott*).	Salvin-Godman Coll.
d′. ♀ ad. sk.	Falkland Islands (*Capt. Abbott*).	J. Gould, Esq.
e′, f′. Ad.; *g′, h′.* Pull. sk.	Falkland Islands, Jan.	H. Saunders Coll.
i′. ♀ ad. sk.	Uranie Bay, Falkland Is., Nov. 21, 1842.	McCormick Bequest.
k′. Ad. sk.	Magellan Straits (*Weisshaupt*).	Salvin-Godman Coll.
l′. Ad. st.	Magellan Straits.	Sir W. Burnett & Capt. Fitzroy, R.N. [P.].
m′. ♂ ad.; *n′.* ♀ ad. sk.	Elizabeth Is., Magellan Straits.	H.M.S. 'Challenger' Exped.
o′. ♂ ad. sk.	Messier Channel, Magellan Strs.	H.M.S. 'Challenger' Exped.
p′. ♂ ad. sk.	Port Desire, Aug. (*J. Young*).	H. Saunders Coll.
q′. ♂ ad.; *r′.* Pull. sk.	Tom Bay, W. Patagonia (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
s′. ♀ ad. sk.	Cockle Cove, W. Patagonia, Oct. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
t′. Juv. st.	Chile (*Cuming*).	T. Brydges [C.].
u′, v′. ♂ juv. sk.	Chile (*E. C. Reed*).	H. Saunders Coll.
w′, x′. Imm. sk.	Coquimbo Bay, Nov. (*Adm. A. H. Markham*).	H. Saunders Coll.
y′, z′. Ad. et juv. sk.	Callao Bay, Peru, Aug.–Sept. (*Adm. Markham*).	H. Saunders Coll.
a″, b″. ♂ ad. sk.	Chimbote, Peru, 9° S. lat., Aug. (*Comm. MacFarlane*).	H. Saunders Coll.

7. Sterna fluviatilis.

The Common Tern.

The Greater Sea Swallow, *Albin, Nat. Hist. B.* iii. p. 81 (1740).

La Grande Hirondelle-de-Mer, *Briss. Orn.* vi. p. 203, pl. xix. fig. 1 (1760).

The Greater Tern, *Pennant, Brit. Zool.* p. 144, pl. l* (1766); *id. Brit. Zool.* 2nd ed. p. 428 (1788).

Larus bicolor, *Scop. Ann. I. Hist. Nat.* p. 81, no. 110 (1769) (imm.).

Larus hirundo, *Scop. Ann. I. Hist. Nat.* p. 82, no. 111 (1769).

Larus sterna, *Scop. Ann. I. Hist. Nat.* p. 82, no. 112 (1769) (imm.).

? Larus columbinus, *Scop. Ann. I. Hist. Nat.* p. 82, no. 113 (1769)(juv.).
Le Pierre-garin, *Buff. Hist. Nat. Ois.* viii. p. 331, pl. xxvii. (1783).
L'Hirondelle de Mer, *Daubent. Pl. Enl.* pl. 987 (1786).
The Common Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 361 (1785) ; *Bewick, Brit. B.* ii. p. 184 (1821) ; *Yarr. Brit. B.* iii. p. 396 (1843).
Sterna hirundo (part.), *Linn. Syst. Nat.* i. p. 227 (1766) ; *P. L. S. Müll. S. N.* p. 352 (1776) ; *Gm. Syst. Nat.* i. p. 606 (1788).
Sterna hirundo, *Lath. Ind. Orn.* ii. p. 807 (1790) ; *Bechst. Naturg. Deutschl.* ii. p. 828 (1791) ; *Meyer & Wolf, Taschenb.* ii. p. 459 (1810) ; *Pallas, Zoogr. Rosso-Asiat.* p. 333 (1811) ; *Illiger, Prodr.* p. 272 (1811) ; *Wilson, Am. Orn.* vii. p. 76, pl. 60. fig. 1 (1813) ; *Meisn. & Schinz, Vög. Schweiz*, p. 261 (1815) ; *Meyer, Vög. Liv- u. Esthl.* p. 229 (1815) ; *Temm. Man. d'Orn.* p. 481 (1815), 2nd ed. p. 740 (1820) ; *Koch, Syst. baier. Zool.* p. 366 (1816) ; *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 41 (1816) ; *Nilss. Orn. Suec.* p. 156 (1817) ; *Boie, Isis*, 1822, p. 563 ; *Brehm, Beitr. Vogelk.* iii. p. 678 (1822) ; *Licht. Verz. Doubl.* p. 81 (1823) ; *Brehm, Lehrb.* p. 688 (1824) ; *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 150, pl. 18 (1825) ; *Bp. Obs. Nomencl. Wilson*, no. 241 (1826) ; *id. Ann. Lyc. N. Y.* ii. p. 354 (1828) ; *Werner, Atlas, Palmipèdes*, pl. 6 (1828) ; *Vieill. Faune franç., Ois.* p. 401 (1828) ; *Fleming, Brit. An.* p. 143 (1828) ; *Kaup, Natürl. Syst.* p. 26 (1829) ; *Lesson, Traité*, p. 621 (1831) ; *Savi, Orn. Tosc.* iii. p. 85 (1831) ; *Sw. & Rich. Faun. Bor.-Amer., Birds*, p. 412 (1831) ; *Ménétr. Cat. Rais. Cauc.* p. 551 (1832) ; *Jard., Ed. Wilson's Amer. Orn.* ii. p. 368 (1832) ; *Selby, Brit. B.* ii. p. 468, pl. xc. fig. 1 (1833) ; *Nuttall, Man. Orn.* ii. p. 271 (1834) ; *Jenyns, Man. Brit. Vertebr.* p. 266 (1835) ; *Gould, B. Eur.* v. pl. 417 (1837) ; *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838) ; *Audub. Orn. Biogr.* iv. p. 74 (1838) ; *id. B. N. Amer.* folio, pl. 309 ; *id. Synops.* p. 318 (1839) ; *Dickson & Ross, P. Z. S.* 1839, p. 135 (breeds, Erzeroom) ; *Schinz, Europ. Faun.* p. 373 (1840) ; *Crespon, Orn. Gard*, p. 474 (1840) ; *Naum. Vög. Deutschl.* x. p. 89, pl. 252 (1840) ; *Keys. & Blas. Wirb. Eur.* pp. xcvii & 246 (1840) ; *Temm. Man. d'Orn.* ed. ii. 4e pte. p. 458 (1840) ; *Nordm. in Demid. Voy. Russ. Mérid.* iii. p. 278 (1840) ; *Gray, List Gen.* p. 79 (1840), & p. 100 (1841) ; *Selys-Longch. Faun. Belg.* p. 150 (1842) ; *Macgill. Man. Brit. Orn.* pt. ii. p. 231 (1842) ; *Giraud, B. Long Isl.* p. 347 (1844) ; *Audub. B. N. Am.* 8vo, vii. p. 97, pl. 433 (1844) ; *Bouteille, Orn. Dauphiné*, ii. p. 235 (1843) ; *Gray, List Anseres B. M.* p. 177 (1844) ; *Schl. Rev. Crit.* p. cxxix (1844) ; *Mühle, Orn. Griechenl.* p. 145 (1844) ; *Rüpp. Syst. Uebers.* p. 139 (1845 : Egypt & Red Sea) ; *Yarr. Brit. B.* 2nd ed. iii. p. 504 (1845) ; *Hewits. Eggs Brit. B.* ii. p. 427, pl. 120. fig. 1 (1846) ; *Gray, Gen. B.* iii. p. 659 (1846) ; *Reichenb. Natat.* tab. xix. figs. 269-273 (1848) ; *id. Syst. Nat.* tab. iv. (1850), and *Av. Syst. Nat., Longip.* p. v (1852) ; *Degl. Ois. Eur.* ii. p. 342 (1849) ; *Blyth, Cat. B. Mus. As. Soc.* p. 292 (1849) ; *Thomps. B. Irel.* iii. p. 281 (1851) ; *Macgill. Brit. B.* v. p. 638 (1852) ; *Brandt, in Lehmann's Reis. n. Buchara*, p. 330 (1852) ; *Kjærb. Danm. Fugle*, p. 329, Taf. 40 A (1852), *and Suppl.* Taf. 20. fig. 3 (1854) ; *Licht. Nomencl. Av.* p. 97 (1854) ; *Schl. Vog. Nederl.* p. 608, pl. 357 (1854) ; *Heugl. Syst. Uebers.* p. 70 (1856 : N. Egypt) ; *Meyer, Brit. B.* vii. p. 82, pl. 291 (1857) ; *Jaub. & Lapomm. Rich. Orn. Fr.* p. 403 (1859) ; *Jones, Nat. Bermuda*, p. 91 (1859) ; *Powys, Ibis*, 1860, p. 356 (Ionian Is.) ; *Simpson, t. c.* p. 393 (Missolonghi, breeding) ; *Linderm. Vög. Griechenl.* p. 178 (1860) ; *Irby, Ibis*, 1861, p. 246 (Oudh & Kumaon) ; *Heugl. in Peterm. Mitth.* 1861, p. 29 (Red Sea) ;

Gray, Cat. Brit. B. p. 240 (1863); *Sundev. Sv. Fogl.* pl. 48. fig. 4 (1863); *Swinh. P. Z. S.* 1863, p. 327 (Hankow, not on coast); *Wright, Ibis*, 1864, p. 153 (Malta); *Jerd. B. Ind.* iii. p. 839 (1864); *Filippi, Viagg. Pers.* p. 352 (1865); *Degl. & Gerbe, Orn. Eur.* ii. p. 456 (1867); *Loche, Expl. Sc. Algér., Ois.* ii. p. 201 (1867); *Pelz. J. f. O.* 1868, p. 37 (Upper Indus); *Bettoni, Ucc. nidif. Lomb.* ii. pl. 84 (1868); *Pelz. J. f. O.* 1868, p. 37, and *Ibis*, 1868, p. 321 (Upp. Indus, *Stoliczka*); *Borggr. Vogelf. Norddeutschl.* p. 144 (1869); *Droste, Vogelw. Borkum*, p. 328 (1869); *Fritsch, Vög. Eur.* p. 458, Taf. 54. fig. 4 (1870); *Allen, Bull. Harv. Coll.* ii. p. 366 (1871); *Swinh. P. Z. S.* 1871, p. 422 (China); *R. Gray, B. West. Scotl.* p. 466 (1871); *Coues, Key N. Amer. B.* p. 320 (1872); *Godman, Ibis*, 1872, p. 222 (Canaries); *Gould, B. Gt. Brit.* v. pl. 70 (1873); *Severtz. Turkest. Jevotn.* p. 70 (1873); *Palmén, Finlands Fogl.* p. 568 (1873); *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Coues, B. N.-West*, p. 680 (1874); *Hensh. Rep. Zool. Expl. 100th Merid.* p. 486 (1875); *Tacz. Bull. Soc. Zool. France*, 1875, p. 261 (East Siberia); *Cory, B. Bahamas*, p. 211 (1880); *Seebohm, Ibis*, 1882, p. 230 (N. Caspian); *Bolau, J. f. O.* 1882, p. 342 (Lake Baikal); *Coues, Check-l. N. Amer. B.* p. 123 (1882); *Severtz. Ibis*, 1883, p. 77 (Pamir lakes, breeding); *Coues, Key N. Amer. B.* 2nd ed. p. 762 (1884); *C. H. T. Marshall, Ibis*, 1884, p. 425 (Chamba); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 295 (1884); *Radde, Orn. Cauc.* p. 486 (1884); *Seebohm, Brit. B.* iii. p. 280 (1885); *Alléon, Ornis*, 1886, p. 424 (Dobrudscha); *Salvad. Ucc. Ital.* p. 276 (1887); *Hartert, MT. Orn. Ver. Wien*, 1887, p. 180, and *Ibis*, 1892, p. 520 (East Prussia, breeding); *Radde & Walter, Ornis*, 1889, p. 126 (Transcaspia); *Gätke, Vogelw. Helgol.* p. 585 (1891); *Hartl. Abh. Nat. Ver. Bremen.* xii. Hft. ii. p. 334 (1892: Tientsin); *Meade-Waldo, Ibis*, 1893, p. 206 (Canaries, breeds); *Hartert, Ibis*, 1893, p. 309 (Aruba), p. 326 (Curaçao), p. 337 (Bonaire); *Collett, Norges Fuglef., Nyt Mag. Naturv.* Bd. xxxv. p. 314 (1894).

Sterna fluviatilis, *Naum. Isis*, 1819, pp. 1847, 1848; *Brehm, Vög. Deutschl.* p. 779 (1831); *Salvad. Ucc. Sard.* p. 122 (1864); *Godman, Ibis*, 1866, p. 102; *id. Azores*, p. 37 (1870); *Gurney, Ibis*, 1868, p. 263 (C. Good Hope); *Doderl. Avif. Sicil.* p. 242 (1869); *Salvad. Faun. Ital., Ucc.* p. 280 (1871); *Saunders, Ibis*, 1871, p. 398 (S. Spain); *Gray, Hand-l. B.* iii. p. 118, no. 11021 (1871); *Harting, Handb. Brit. B.* p. 75 (1872); *Sharpe & Dresser, B. Eur.* viii. p. 263, pl. 580 (1872); *Shelley, B. Egypt*, p. 299 (1872); *Gurney in Anderss. B. Dam.-Ld.* p. 361 (1872); *Collett, Forh. Selsk. Christ.* p. 291 (1873); *Brooke, Ibis*, 1873, p. 346 (Sardinia); *Hume & Henders. Lahore to Yark.* p. 303 (1873: Yarkand); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1418 (1873); *Durnf. Ibis*, 1874, p. 400 (N. Frisian Is.); *Irby, Orn. Strs. Gibr.* p. 210 (1875); *Scully, Str. F.* 1876, p. 203 (Yarkand, breeds); *Dresser, Ibis*, 1876, p. 415 (Turkestan, up to 4000 ft.); *Blanf. East. Pers.* ii. p. 293 (1876); *Saunders, P. Z. S.* 1876, p. 649 (revision); *David & Oustal. Ois. Chine*, p. 525 (1877); *Collett, Nyt Mag. Naturv.* 1877, p. 214 (Norway); *Finsch, Reis. West-Sibir.* p. 278 (1879); *Legge, B. Ceylon*, p. 1015 (1880); *Hume, Str. F.* viii. p. 116 (1880: list); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Davison, Str. F.* x. p. 418 (1882: Mysore); *Salvin, Cat. Strickl. Coll.* p. 623 (1882); *B. O. U. List Brit. B.* p. 180 (1883); *Menzbier, Bull. Mosc.* lviii. p. 136 (1883); *Sharpe, ed. Layard's B. S. Afr.* p. 701 (1884); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 549 (1884); *Tristr. Faun. & Fl. Palest.* p. 135 (1884); *Büchner,*

Beitr. Russ. Reiches, (2) ii. p. 127 (1885: St. Petersburg); *Homeyer, Ornis*, 1885, p. 81; *Lutke, t. c.* p. 146 (Denmark); *Torre & Tsch. t. c.* p. 563 (Austria, Hungary); *Albarda, t. c.* p. 630 (Holland); *O. Winge, op. cit.* 1886, p. 593 (Denmark: breeds); *Schneider, op. cit.* 1887, p. 552 (Upper Rhine, breeds); *Whitehead, Ibis*, 1885, p. 46 (Corsica); *Reid, Ibis*, 1885, p. 254 (N.W. Marocco); *Giglioli, Avif. Ital.* p. 415 (1886); *Ridgw. Man. N. Amer. B.* p. 43 (1887); *Tait, Ibis*, 1887, p. 393 (Portugal); *Booth, Rough Notes*, iii. (1887); *H.-Brown & Buckl. Faun. Sutherl.* p. 227 (1887); *Taczan. Ornis*, 1888, p. 505 (Poland, br.); *Reid, Ibis*, 1888, p. 79 (Tenerife, breeds); *H.-Brown & Buckl. Faun. Outer Hebr.* p. 141 (1888); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. no. 3, p. 57 (1888: Turkestan); *Tristr. Cat. Coll. B.* p. 9 (1889); *Riesenth. Wasser-Vög. Mitteleurop.* p. 142 (1889); *Lilford, Ibis*, 1889, p. 347 (Cyprus); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 61 (1889); *Saunders, Man. Brit. B.* p. 631 (1889); *Keller, Orn. Carinth.* p. 307 (1890); *Buckl. & H.-Br. Faun. Orkney Is.* p. 228 (1891); *Frivaldsky, Av. Hung.* p. 179 (1891); *Madarász, Aust. Hung. Vogelf.* p. 120 (1891); *Giglioli*, i. *Resoc. Av. Ital.* p. 630 (1889); *id.* ii. *Resoc.* p. 661 (1890); *id.* iii. *Resoc.* p. 517 (1891); *Cory, B. Bahamas*, p. 211 (1890); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 354 (1890); *Saunders, Ibis*, 1891, p. 187 (Lake Léman); *Dresser, t. c.* p. 370 (Erzeroum); *Styan, t. c.* p. 509 (Lower Yangtse); *Cory, Cat. B. W. Indies*, p. 278 (1892: Bahamas); *De la Touche, Ibis*, 1892, p. 502 (Swatow, breeding); *H.-Brown & Buckl. F. Argyll &c.* p. 185 (1892); *Büttikofer, C. R.* ii. *Congr. Orn. Intern.* ii. p. 175 (1892: Liberia); *Tristram, Ibis*, 1893, p. 217 (ἡ ἀλκυὼν of Eretria).

Sterna nitzschii, *Kaup, Isis*, 1824, p. 153; *Gray, Gen. B.* iii. p. 659 (1846).

Sterna pomarina, *Brehm, Vög. Deutschl.* p. 781 (1831).

Sterna marina, *Eyton, Cat. Brit. B.* p. 55 (1836).

Sterna senegalensis, *Sw. B. W. Afr.* ii. p. 250 (1837); *Gray, Gen. B.* iii. p. 659 (1846); *Hartl. Orn. W.-Afr.* p. 255 (1857); *Cass. Pr. Philad. Acad.* 1859, p. 176 (Camma River, W. Africa); *Schleg. Mus. P.-Bas*, Sternæ, pp. 16, 17 (1863); *Bocage, Jorn. Lisb.* p. 149 (1867).

Sterna wilsoni, *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838); *Gray, Gen. B.* iii. p. 659 (1846); *Baird, Cass., & Lawr. B. N. Amer.* p. 861 (1858); *Coues, Pr. Philad. Acad.* 1861, p. 247 (Labrador); *Dresser, Ibis*, 1866, p. 44 (Texas); *Gray, Hand-l. B.* iii. p. 118, no. 11024 (1871); *Snow, B. Kansas*, p. 12 (1873).

Hydrocecropis senegalensis (*Sw.*), *Boie, Isis*, 1844, p. 179.

Hydrocecropis hirundo, *Boie, Isis*, 1844, p. 179.

Hydrocecropis wilsoni, *Boie, Isis*, 1844, p. 179.

? Sterna nilotica, *Rüpp. Syst. Uebers.* p. 139 (1845: Nile); *Heugl. Syst. Uebers*, p. 71 (1856: N. Egypt).

Sterna blasii, *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 348 (1855).

Sterna ——?, *Coues, Ibis*, 1864, p. 389, no. 9 (San José de Guatemala).

Sterna macrodactyla, *Blas. J. f. O.* 1866, pp. 75, 79 (Cape Good Hope).

Sterna macroptera, *Blas. J. f. O.* 1866, pp. 76, 79 (Cape Good Hope); *Finsch, Tr. Z. S.* vii. p. 303 (1870: Zoulla); *Gray, Hand-l. B.* iii. p. 118, no. 11023 (1871); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1418 (1873); *Reichenow, J. f. O.* 1877, p. 10 (Loango); *Bocage, Orn. Angola*, p. 510 (1881).

Sterna dougalli, *Layard, B. S. Afr.* p. 369 (1867); *Chapman, Trav. S. Afr.* ii. p. 424 (1868).

Sterna tibetana, *Saund. P. Z. S.* 1876, p. 649; *Hume, Str. Feath.* v. p. 485 (1877: Tibet, N. of Sikkim); *id. Str. Feath.* viii. p. 158 (1879: Tonka, Malay Pen.).
Sterna major, *Olphe-Galliard, Contr. Faun. Orn. Eur. Occid.* pt. x. p. 28 (1886).
Sterna hirundo macroptera, *Hartert, Kat. Vogelsamml. Senckenb.* p. 239 (1891).

Adult male in breeding-plumage. Forehead, upper lores, crown, and nape black; mantle rather dark pearl-grey; secondaries narrowly margined with white; outer primary with a black outer web, and a broad streak (0·4 in.) of very dark grey next the white shaft on the inner web, the rest of the inner web white, except towards the tip, where it is dark ash-grey; inner primaries paler grey, with white "wedges" and dark grey margins to the inner webs; rump whitish; tail-feathers white, with grey outer webs, those of the streamers darkest; chin and cheeks white; breast and belly pale vinaceous grey; under wing- and under tail-coverts white: bill coral-red, the extreme tip horn-colour; irides dark brown; tarsi and toes coral-red. Total length 14·25 inches, culmen 1·7, wing 10·5, tail 6·5, depth of fork 3·25, tarsus 0·85, middle toe with claw 0·95.

Female. Similar to the male.

Adult in winter plumage. Like the above, but the forehead and crown streaked and mottled with white; colours of bill and feet much duller from September onwards, underparts paler.

Immature. Like the above, but the forehead white; a dark grey band along the upper wing-coverts; underparts distinctly white.

Young (in August). Mantle barred and mottled with ash-brown; outer webs of tail-feathers dark grey; band on the wing-coverts more extended than in the immature bird; otherwise similar. In fledglings the upper parts are much marked with warm buff.

Up to about the end of September the colours of the bill and feet become brighter, but afterwards they rapidly go back and become more or less horn-coloured.

Nestling. Forehead and throat brown; upper parts stone-buff, spotted and streaked with black; underparts white; feet yellow.

At one time I thought that birds from Tibet might be specifically distinguished, but the inspection of a large series has proved unfavourable to this view.

Hab. Coasts, rivers, and inland lakes of Europe and temperate Asia (breeding); India, Ceylon, and South Africa in winter; temperate North America to Texas (breeding), but scarcely known on the Pacific side; southward to Bahia, Brazil, in winter.

a. Ad. st.	Great Britain.	W. Yarrell, Esq. [P.].
b. Juv. st.	Great Britain.	Dr. Smith [P.].
c. ♂; *d.* Juv.; *e.* Pull. sk.	Dungeness.	Capt. Verner [P.].
f–q. Ad.; *r–v.* Pull. st.	Dungeness.	Capt. Verner [P.].

w–y. Juv. st.; *z–h'*. ♂ ♀ juv.; *i'*. ♀ ad. sk.	Romney, Kent, Aug.	R. B. Sharpe, Esq. [P.].
k'. Pull. sk.	Romney, Kent, June.	H. Saunders Coll.
l'. Ad. sk.	Strathfieldsaye.	Tweeddale Coll.
m'. Ad. sk.	Sussex.	Montagu Coll.
n'. Ad. st.	Sussex.	W. Yarrell, Esq. [P.].
o'. ♂ ad. sk.; *p'*. Juv. st.	Shoreham, Sussex.	R. B. Sharpe, Esq. [P.].
q'. Ad. sk.	Hastings.	Hume Coll.
r'. ♂ ad. sk.	Budle Bay, June.	Salvin-Godman Coll.
s'. Ad. st.	Scilly Islands.	D. W. Mitchell, Esq. [P.].
t'. ♀ ad.; *u'*, *v'*. ♀ juv. sk.	Tenby, Oct. (*H. S.*).	H. Saunders Coll.
w'. Imm. sk.	Cookham, Berks, Dec. (*R. B. Sharpe*).	Tweeddale Coll.
x'. ♂ imm. sk.	Blakeney, Norfolk, Sept. (*C. Dack*).	Hume Coll.
y'. ♀ ad. sk.	Blakeney, Norfolk, Aug. (*H. S.*).	H. Saunders Coll.
z', *a''*. Juv. st.	Wells, Norfolk, July.	Dr. Günther [P.].
b''. ♂ ad. sk.	Wells, Norfolk, July.	Dr. Günther [P.].
c''. ♀ ad. sk.	Farne Islands, June 12, 1865 (snared on eggs, *H. S.*).	H. Saunders Coll.
d''. Ad.; *e''*, *f''*. Pull. sk.	Buddon-ness, Firth of Tay, June.	H. Saunders Coll.
g''. Juv. sk.	Buddon-ness, Firth of Tay, July.	H. Saunders Coll.
h''. ♂ ad.; *i''*. ♀ ad. sk.	Loch Lomond, June (*A. Anderson*).	Seebohm Coll.
k''. Ad. st.	Sound of Harris, Hebrides, summer.	Theodore Walker, Esq. [P.].
l'', *m''*. Ad. sk.	Orkneys, summer (*J. Dunn*).	Gould Coll.
n'', *o''*. Pull. sk.	Orkneys, summer (*J. Dunn*).	Salvin-Godman Coll.
p''. ♂ ad. sk.	Strangford Lough, Ireland, Aug.	H. Saunders Coll.
q''. Ad. st.	Ballinamuck, Ireland.	C. Coningham, Esq. [P.].
r'', *s''*. Pull. st.	Sylt (*J. Baker*).	J. Gould Coll.
t'', *u''*. Pull. st.	Sylt.	Purchased.
v''. ♂ ad. sk.	Blaaflaten, Norway, June (*Harvie-Brown*).	H. Saunders Coll.
w''. Pull. sk.	Holland.	Seebohm Coll.
x''. Juv. sk.	East Prussia.	E. Hartert, Esq. [P.].
y''. Juv. sk.	France.	Mons. Baillon.
z''. ♂ juv. sk.	Le Hâvre, France, Sept. (*V. Pluche*).	H. Saunders Coll.
a^3. Juv. sk.	La Coruña, Oct. 2.	Dr. Seoane [P.].
b^3. ♂ ad. sk.	Malaga, June.	H. Saunders Coll.
c^3. ♂ juv. sk.	Malaga, Aug.	H. Saunders Coll.
d^3. ♀ ad.; *e*^{3}. Pull. sk.	Sardinia (*J. J. Dalgleish*).	H. Saunders Coll.
f^3. ♂ ad. sk.	Missolonghi, Greece, June (*H. Seebohm*).	H. Saunders Coll.
g^3, *h*^{3}. ♀ ad. sk.	Lepanto, Greece, May (*H. Seebohm*).	Seebohm Coll.

i^3. Ad. sk.	Sea of Marmora (*Robson*).	Tweeddale Coll.
k^3. ♂ ad. sk.	Flores, Azores (*F. D. Godman*).	Salvin-Godman Coll.
l^3. Ad. sk.	St. Michael's, Azores (*F. D. Godman*).	Salvin-Godman Coll.
m^3. Imm. sk.	Accra, Gold Coast, Feb. (*Capt. G. E. Shelley*).	H. Saunders Coll.
n^3, o^3. Imm. sk.	Accra, Feb. (*Capt. G. E. Shelley*).	Shelley Coll.
p^3. Imm. sk.	Walvisch Bay, Damara-land, Oct. (*C. J. Andersson*).	Tweeddale Coll.
q^3, r^3. Ad. sk.	Walvisch Bay, Damara-land, Oct. (*C. J. Andersson*).	H. Saunders Coll.
s^3. Imm. sk.	Cape of Good Hope.	Gould Coll.
t^3. Imm. sk.	Table Bay, Cape of Good Hope.	E. L. Layard, Esq. [P.].
u^3, v^3. Imm. sk.	Table Bay, Cape of Good Hope (*E. L. Layard*).	H. Saunders Coll.
w^3. Imm. sk.	Table Bay, Cape of Good Hope (*E. L. Layard*).	Hume Coll.
x^3. Juv. sk.	Zoulla, Red Sea, Aug. (*W. Jesse*).	Tweeddale Coll.
y^3. Juv. sk.	Persian Gulf, Sept.	Hume Coll.
z^3. Ad. sk.	"India" (*J. Gould Coll.*).	H. Saunders Coll.
a^4. Ad. st.	"India."	Dr. T. C. Jerdon [P.].
b^4. ♀ imm. sk.	Trincomalee, Ceylon (*Col. W. V. Legge*).	R. B. Sharpe, Esq. [P.].
c^4, d^4. ♂ imm.; e^4. ♀ imm. sk.	Trincomalee, Ceylon, April & Oct. (*Col. W. V. Legge*).	H. Saunders Coll.
f^4. ♀ imm. sk.	Salangore, Malay Peninsula, Aug. (*W. Davison*).	Hume Coll.
g^4. ♀ ad.; h^4, i^4. ♂ imm. sk.	Ratnagiri, S. Konkan, Oct. (*G. Vidal*).	Hume Coll.
k^4. ♀ imm. sk.	Karachi, April (*Col. E. A. Butler*).	Hume Coll.
l^4. Ad. sk.	Futtehghur (*A. Anderson*).	Hume Coll.
m^4, n^4. Ad. sk.	Tibet.	Lord Gifford [P.].
o^4. Ad. sk.	Tibet.	Tweeddale Coll. (Type of *S. tibetana*, Saunders.)
p^4. ♂ ad. sk.	Sughurchati, July (*J. Scully*).	H. Saunders Coll.
q^4, r^4. Ad. sk.	Ladak (*Strachey*).	India Museum [P.].
s^4, t^4. Ad. sk.	Yarkand, May 25 (*Dr. Stoliczka*).	India Museum [P.].
u^4. ♀ ad. sk.	Yarkand, June (*Dr. J. Scully*).	Hume Coll.
v^4. ♂ ad.; w^4. ♂ vix ad.; x^4. Ad.; y^4. Juv. sk.	Yarkand, Aug. (*Dr. Henderson*).	Hume Coll.
z^4. Ad. sk.	Tarim River, May (*St. G. L.*).	St. George Littledale, Esq. [P.].
a^5, b^5. Ad. sk.	Tibet, July–Aug. (*L. Mandelli*).	Hume Coll.
c^5. Juv. sk.	Native Sikkim, Feb. (*L. Mandelli*).	Hume Coll.
d^5. ♀ ad. sk.	Saisan Nor, Turkestan, June.	Dr. O. Finsch [C.].
e^5. ♂ ad. sk.	Sarai Gor, Ob, July 10.	Dr. O. Finsch [C.].
f^5. Pull. sk.	Schtschutschja, July 20.	Dr. O. Finsch [C.].

g^5, h^5. ♂ ♀ ad.; i^5. Juv. sk.	Prov. Chotan (*Genl. Prjevalsky*).	Seebohm Coll.
k^5, l^5. ♂ ♀ ad. sk.	Zaidam (*Genl. Prjevalsky*).	Seebohm Coll.
m^5. ♂ ad. sk.	Koko-nor (*Genl. Prjevalsky*).	Seebohm Coll.
n^5. ♂ ad. sk.	Daüria, June.	Dybowski Coll.
o^5. Ad. sk.	Hankow, China, autumn.	Swinhoe Coll.
p^6. Ad. sk.	Hudson's Bay (*Hudson Bay Co.*).	H. Saunders Coll.
q^5. ♂ ad. sk.	Ipswich, Mass., July (*J. Maynard*).	H. Saunders Coll.
r^5. Ad. sk.	Muskegatt Id., Mass., July (*W. Brewster*).	H. Saunders Coll.
s^5, t^5. ♂ ♀ ad.; u^5. ♀ juv. sk.	Massachusetts, summer (*H. W. Henshaw Coll.*).	Salvin-Godman Coll.
v^5, w^5. ♂ ad.; x^5. ♀ ad. sk.	Wood's Hole, Mass., July–Aug. (*H. W. Henshaw Coll.*).	Salvin-Godman Coll.
y^5. ♂ ad. sk.	Nantucket, Mass., May (*H. W. Henshaw Coll.*).	Salvin-Godman Coll.
z^5. ♀ ad. sk.	Nantucket, Mass., July (*H. W. Henshaw Coll.*).	Salvin-Godman Coll.
a^6. ♀ juv. sk.	Nantucket, Mass.. Sept. (*H. W. Henshaw Coll.*).	Salvin-Godman Coll.
b^6. ♂ juv. sk.	Bone Id., Virginia, July (*P. L. Jouy*).	H. Saunders Coll.
c^6. ♂ ad. sk.	Cobb's Id., Va., June (*L. M. Jones*).	H. Saunders Coll.
d^6. ♀ ad. sk.	Cobb's Id., Va., July 2 (*Henshaw*).	Salvin-Godman Coll.
e^6. ♂ pull.; f^6–h^6. ♀ pull. sk.	Cobb's Id., Va., July 3 (*Henshaw*).	Salvin-Godman Coll.
i^6. ♂ pull.; k^6. ♀ pull.; l^6. ♂ juv. sk.	Cobb's Id., Va., Aug. 1 (*Henshaw*).	Salvin-Godman Coll.
m^6. Juv. sk.	Florida, winter (*C. J. Maynard*).	H. Saunders Coll.
n^6–e^7. ♂ ad.; f^7–b^8. ♂ imm.; c^8–l^8. ♀ ad.; m^8–k^9. ♀ imm. sk.	Tarpon Springs, Florida, Sept. 10–26 (*W. E. D. Scott*).	Salvin-Godman Coll.
l^9. ♀ ad. sk.	Brownsville, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
m^9, n^9. ♂ ♀ ad. sk.	Corpus Christi, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
o^9. ♀ juv. sk.	Grenada, W. Indies, Sept. 14 (*D. W. Smith*).	Salvin-Godman Coll.
p^9. Imm. st.	Cayenne.	H. C. Rotherey, Esq. [P.].
q^9. Imm. sk.	Bahia, Brazil (*Wucherer*).	H. Saunders Coll.
r^9. ♀ imm. sk.	San José de Guatemala, Dec. 8, 1862 (*O. Salvin*).	Salvin-Godman Coll.
s^9. Juv. sk.	"N.W. coast of America."	Capts. Kellett & Wood, R.N. [P.].
t^9. Skeleton, mounted.	Lyme Regis.	Dr. A. Günther [P.].
u^9, v^9. Skeletons, unmounted.	England.	Purchased.

8. Sterna macrura.

The Arctic Tern.

Sterna hirundo (part.), *Brünn. Orn. Bor.* p. 45, no. 151, juv. (1764); *Linn. Syst. Nat.* i. p. 227 (1766); *Retz. Faun. Suec.* p. 162 (1800).

Sterna paradisæa, *Brünn. Orn. Bor.* p. 46 (1764: Bornholm), no. 152, adult; *Schleg. Mus. P.-Bas*, Sternæ, p. 15 (1863); *Blas. J. f. O.* 1866, p. 74 (revision Sterninæ); *Degl. et Gerbe, Orn. Eur.* ii. p. 458 (1867); *Baird, Brew. & Ridgw. Water-B. N. Amer.* ii. p. 299 (1884); *Stejneg. Expl. Commander Is. &c.* p. 85 (1885); *id. Pr. U.S. Nat. Mus.* 1887, p. 124; *A.O.U. Check-l.* p. 94, no. 71 (1886); *Mewes & Homeyer, Ornis*, 1886, p. 272; *Nelson, Rep. Alaska*, p. 58 (1887); *Palmén, Vega-Exped. Vetensk. iatt.* Bd. v. p. 349 (1887); *Ridgw. Man. N. Amer. B.* p. 43 (1887); *M. Chamberlain in Hagerup's B. Greenl.* p. 47 (1891); *R. Macfarl. Pr. U.S. Nat. Mus.* xiv. p. 419 (1891: Ft. Anderson).

Sterna hirundo, *Müller, Zool. Dann. Prod.* p. 170 (1774); *Phipps, Voy. towards N. Pole*, App. p. 188 (1774); *O. Fabr. Faun. Groenl.* p. 105, no. 69 (1780); *Mohr. Island Naturh.* p. 43 (1786); *E. Sabine, Tr. Linn. Soc.* xii. p. 542 (1819: Greenland); *Leach, in J. Ross' Voy. Baffin Bay*, App. ii. pl. viii. (1819); *Scoresby, Arctic Regions*, i. p. 533 (1820: Spitsbergen); *Brehm, Vög. Deutschl.* p. 781 (1831); *Gaimard, Voy. Islande, Zool.* p. 163 (1851); *Gray, Hand-l. B.* iii. p. 118, no. 11020 (1871); *Salvad. Faun. Ital., Uce.* p. 280 (1871); *Sharpe & Dresser, B. Eur.* (pt. xii.) viii. p. 255, pl. 579 (1872); *Harting, Handbk. Brit. B.* p. 76 (1872); *Shelley, B. Egypt*, p. 299 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1421 (1873); *Alston & H.-Brown, Ibis*, 1873, p. 12 (Archangel); *Durnford, Ibis*, 1874, p. 200 (North Frisian Is., breeds); *Irby, Orn. Strs. Gibr.* p. 210 (1875); *A. Newt. Arct. Man.* p. 105 (1875); *Seeb. & H.-Brown, Ibis*, 1876, p. 451 (Lower Petchora); *Collett, Nyt Mag. Naturv.* 1877, p. 214 (Norway); *Giglioli, Ibis*, 1881, p. 217 (Genoa); *W. H. Neale, P. Z. S.* 1882, p. 654 (Franz-Josef Ld.); *Olphe-Gall. Contr. Faun. Orn. Eur. Occid.* pt. x. p. 21 (1886); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 354 (1890); *Hagerup, B. Greenl.* p. 47 (1891).

Sterna macrura, *Naum. Isis*, 1819, p. 1847; *Naum. Vög. Deutschl.* x. p. 114, pl. 253 (1840); *Keys. & Blas. Wirb. Eur.* pp. xcvii & 246 (1840); *Gray, List B. Br. Mus., Anseres*, p. 178, partim (1844); *Schl. Rev. Crit.* p. cxxix (1844); *Degl. Orn. Eur.* ii. p. 344 (1849); *Thomps. B. Irel.* iii. p. 293 (1851); *Middend. Reis. Sibir., Zool.* p. 245, Taf. 25. figs. 2 (pull.), 3 (egg) (1851) *Baird, Cass. & Lawr. B. N. Amer.* p. 862 (1858); *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 404 (1859); *Coues, Pr. Philad. Acad.* 1862, p. 549 (revision); *A. Newton, in Baring-Gould's Iceland*, p. 417 (1863); *Radde, Reis. Sibir., Vög.* p. 388 (1863: Angara); *A. Newton, Ibis*, 1865, p. 506 (Spitsbergen); *Gurney, Ibis*, 1868, p. 262 (S. Africa); *Borggr. Vogelf. Norddeutschl.* p. 144 (1869); *Dall & Bann. Tr. Chic. Acad.* i. p. 306 (1869); *Fritsch, Vög. Eur.* p. 459, taf. 54. fig. 1 (1870); *Gillett, Ibis*, 1870, p. 306; *Allen, Bull. Harv. Coll.* ii. p. 368 (1871: Florida); *Heuglin, Ibis*, 1872, p. 64 (Novaya Zemlya); *Finsch, Abh. Ver. Brem.* v. p. 366 (1873: Greenland); *Gould, B. Gt. Brit.* v. pl. 72 (1873); *Coues, B. N.-West*, p. 658 (1874); *Tacz. Bull. Soc. Zool. France*, 1875, p. 261 (N.E. Siberia); *Saunders, P. Z. S.* 1876, p. 650 (revision Sterninæ); *Feilden, Ibis*, 1877, p. 403 (Smith's Sound); *Taczanowski, P. Z. S.* 1877, p. 749 (Tumbez, Peru); *Seebohm, Ibis*, 1879, p. 161 (Yenesei); *Kumlien, Bull. U.S. Nat.*

Mus. no. 15, p. 101 (1879); *Saund. P. Z. S.* 1880, p. 163 (32° S., 57° E.); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Feilden in Markham's Polar Reconn.* p. 334 (1881: Novaya Zemlya); *id. Tr. Norf. & Norw. N. H. Soc.* iii. p. 209 (1881: Franz-Josef Land); *Coues, Check-l. N. Amer. B.* p. 123 (1882); *Chamberlain, B. New Brunsw.* p. 62 (1882); *Salvin, Cat. Strickl. Coll.* p. 624 (1882); *Seebohm, Ibis*, 1882, p. 385 (Archangel); *Nelson, Cr. 'Corwin,'* p. 109 (1883: Alaska); *Brewster, Pr. Bost. Soc. N. H.* xxii. p. 402 (1883: St. Lawrence Gulf); *B. O. U. List Brit. B.* p. 180 (1883); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 553 (1884); *Bunge, Mél. Biol. St. Pétersb.* xii. liv. i. p. 54 (Lena delta); *Sharpe, ed. Layard's B. S. Afr.* p. 701 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 764 (1884); *Slater & Carter, Ibis*, 1886, p. 50 (N. Iceland); *Giglioli, Avif. Ital.* p. 416 (1886); *Taczan. Orn. Pérou*, iii. p. 441 (1886); *H.-Brown & Buckl. Faun. Sutherl. &c.* p. 227 (1887); *Booth, Rough Notes*, iii. (1887); *Salvad. Ucc. Ital.* p. 276 (1887); *H.-Brown & Buckl. Faun. Outer Hebr.* p. 139 (1888); *Tschusi, MT. Orn. Ver. Wien*, 1888, p. 80 (Hungary); *Riesenth. Wasser-Vög. Mitteleurop.* p. 143 (1889); *Rchnw. Syst. Verz. Vög. Deutschl.* p. 61 (1889); *Tristr. Cat. Coll. B.* p. 9 (1889); *Saunders, Man. Brit. B.* p. 633 (1889); *Giglioli, Avif. Ital.*, i. *Resoc.* p. 632 (1889: Lombardy); *id.* ii. *Resoc.* p. 165 (1890); *Hartert, Katal. Vogelsamml. Senckenb.* p. 239 (1891); *Buckl. & H.-Brown, Faun. Orkneys*, p. 227 (1891); *Gätke, Vögelw. Helgol.* p. 585 (1891); *H.-Brown & Buckl. Faun. Argyll &c.* p. 185 (1892); *Ussher, Pr. R. Irish Acad.* (3) iii. p. 409 (1894); *Collett, Norges Fugelf., Nyt Mag. f. Naturv.* Bd. xxxv. p. 316 (1894); *Lilford, Col. Figs. Brit. B.* pt. xxviii. (1894).

Sterna arctica, *Temm. Man. d'Orn.* ii. p. 742 (1820); *E. Sabine, Suppl. Parry's 1st Voy.* p. ccii (1821); *Boie, Isis*, 1822, p. 563; *Meyer, Taschenb.* iii. p. 187 (1822); *J. Sabine, App. Franklin's Journ.* p. 694 (1823); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 152 (1825); *Richards. App. Parry's 2nd Voy.* p. 356 (1825); *J. C. Ross, App. Parry's 3rd Voy.* p. 103 (1826); *id. App. Parry's 4th Voy.* p. 194 (1828: Spitsbergen, breeds); *Audub. B. Amer.* pl. 250 (c. 1826); *Bp. Ann. Lyc. N.Y.* ii. p. 354 (1828); *Werner, Atlas, Palmipèdes*, pl. 7 (1828); *Kaup, Natürl. Syst.* p. 26 (1829); *Brehm, Vög. Deutschl.* p. 785 (1831); *Lesson, Traité*, p. 621 (1831); *Swains. & Rich. Faun. Bor.-Amer., Birds*, p. 414 (1831); *Savi, Orn. Tosc.* iii. p. 86 (1831); *Selby, Brit. B.* ii. p. 473, pl. xc. fig. 2 (1833); *Nuttall, Man. Orn.* ii. p. 275 (1834); *Jenyns, Man. Br. Vertebr.* p. 267 (1835); *Audub. Orn. Biogr.* iii. p. 366 (1835); *Eyton, Cat. Brit. B.* p. 54 (1836); *Gould, B. Eur.* v. pl. 419 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838); *Audub. Synops.* p. 319 (1839); *id. B. Amer.* 8vo, vii. p. 107, pl. 436 (1844); *Temm. Man. d'Orn.* ed. ii. 4e pte, p. 458 (1840); *Schinz, Vög. Eur.* p. 373 (1840); *Macgill. Man. Brit. Orn.* pt. ii. p. 232 (1842); *Selys-Longch. Faun. Belg.* p. 150 (1842); *Yarr. Brit. B.* 2nd ed. iii. p. 507 (1845); *Hewits. Eggs Brit. B.* ii. p. 428, pl. 120. fig. 2 (1846); *Reichenb. Natat.* tab. xx. figs. 274–280 (1848); *Wolley in Jard. Contr. Orn.* p. 113 (1850: Faeroes); *Macgill. Brit. B.* v. p. 643 (1852); *Licht. Nomencl. Av.* p. 97 (1854); *Meyer, Brit. B.* vii. p. 90, pl. 293 (1857); *Sundev. Sv. Fogl.* pl. 48. figs. 2 & 3 (1863); *R. Gray, B. W. Scotl.* p. 468 (1871); *Palmén, Finlands Foglar*, p. 573 (1873); *E. Adams, Ibis*, 1878, p. 440 (Alaska); *Feilden, Zool.* 1879, p. 7 (Prince Albert Ld.); *Collins, Rep. Amer. Fisheries*, 1882, p. 332; *Seebohm, Brit. B.* iii. p. 284 (1885).

Sterna argentata, *Brehm, Beitr. Vogelk.* iii. p. 692 (1822); *id. Lehrb. Eur. Vög.* p. 689 (1824); *id. Vög. Deutschl.* p. 782 (1831); *id. Naum.* 1855, p. 295; *id. Vogelf.* p. 348 (1855); *Homeyer, Ornis*, 1885, p. 81; *Lutke, t. c.* p. 145, and *op. cit.* 1886, p. 99, *O. Winge*, p. 592 (Denmark, breeds); *Grondal, Ornis*, 1885, p. 371 (Iceland).

Sterna brachytarsa, *Graba, Reise n. Färö*, p. 219 (1830); *Brehm, Vög. Deutschl.* p. 787 (1831).

Sterna argentacea, *Brehm, Vög. Deutschl.* p. 783 (1831); *id. Naum.* 1855, p. 295—misprinted S. argentatea.

Sterna oceani, *Brehm, Vög. Deutschl.* p. 786 (1831).

Sterna macroura, *Brehm, Vög. Deutschl.* p. 784 (1831); *Gray, Gen. B.* iii. p. 659 (1846); *Kjærb. Dann. Fugle*, p. 330, Taf. 40 B (1852), and *Suppl.* Taf. 20. figs. 4, 5 (1854); *Heugl. Syst. Uebers.* p. 70 (1856: Egypt, winter); *Evans & Sturge, Ibis*, 1859, p. 167 (W. Spitsbergen); *Reinh. Ibis*, 1861, p. 19 (Greenland); *Gray, Cat. Brit. B.* p. 240 (1863); *Malmgr. Œfv. K. Vet.-Akad. Forh. Stockh.* 1863, p. 101, *and* 1864, p. 385 (Spitsbergen); *Loche, Expl. Sci. Alyér., Ois.* ii. p. 202 (1867); *Heugl. in Petern. Mittheil.* 1869, p. 408; *Droste, Vogelw. Borkums*, p. 326 (1869); *Coues, Key N.-Amer. B.* p. 321 (1872); *Sundev. Œfv. K. Vet.-Akad. Forh. Stockh.* 1874, p. 21 (Spitsbergen); *Finsch, Reise West. Sibir.* p. 279 (1879).

Sterna brachypus, *Sw. B. W. Afr.* ii. p. 152 (1837); *Gray, Gen. B.* iii. p. 659 (1846); *Hartl. Orn. W.-Afr.* p. 255 (1857); *Layard, B. S. Afr.* p. 371 (1867); *Gurney, Ibis*, 1868, p. 262 (S. Africa); *Sperling, Ibis*, 1868, p. 284 (Europa I., Mozambique Channel); *Gray, Hand-l. B.* iii. p. 118, no. 11022 (1871).

Sterna senegalensis, *Swains. B. W. Afr.* ii. p. 250 (1837); *Schleg. Mus. P.-Bas*, Sternæ, p. 16 (1863) (partim)*; *Gray, Gen. B.* iii. p. 659 (1846).

The Arctic Tern, *Yarr. Brit. B.* iii. p. 399 (1843).

Hydrocecropis macroura, *Boie, Isis*, 1844, p. 179.

Hydrocecropis brachypus, *Boie, Isis*, 1844, p. 179.

Sterna coccineirostris, *Reichenb. Natat., Novitates*, viii. tab. cclxxi. fig. 2262 (1850: Mexico); *Gray, Hand-l. B.* iii. p. 118, no. 11029 (1871).

Sterna pikei, *Lawr. Ann. Lyc. N. Y.* vi. p. 3 (1853: Monterey, Cala.); *Baird, Cass. & Lawr. B. N. Amer.* p. 863, pl. 95 (1858); *Coues, Pr. Philad. Acad.* 1862, p. 550; *Gray, Hand-l. B.* iii. p. 118, no. 11031 (1871).

Sterna longipennis, *Coues, Key N. Amer. B.* p. 321 (1872).

Sterna portlandica, *Ridgw. Amer. Nat.* viii. p. 433 (1874); *Coues, B. N.-West*, p. 691 (1874); *Brewster, Ann. Lyc. N. Y.* xi. p. 201 (1875: referred to *S. macrura*).

? Sterna atrofasciata, *Philippi & Landb. Wiegm. Archiv*, 1863, Bd. i. p. 204 (Colchagua, Chile: juv.); *Gray, Hand-l. B.* iii. p. 118, no. 11035 (1871).

? Pelodes albistriata, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 356 (1890: "St. John's Id., West Indies").

Adult male in breeding-plumage. Forehead, upper lores, crown, and nape black; a white streak from the base of the bill running

* One of the specimens so named in the Leyden Museum is *S. macrura*, the other being *S. fluviatilis*.

backwards to the side of the neck; mantle pearl-grey; secondaries broadly edged with white, and the inner webs chiefly white; outer web of outside primary blackish, shaft white, inside which a parallel line of grey, seldom exceeding 0·15 inch in width in the middle, rest of the inner web white, except near the tip, where it is grey, the succeeding primaries with a gradual increase of grey ascending the inner margins; tail-coverts conspicuously white; tail-feathers white, with a faint grey tinge on the outer webs and dark grey outer webs to the streamers; vent and under wing-coverts white; abdomen and breast french-grey, without any vinaceous tint; chin paler grey: bill blood-red; tarsi and toes coral-red. Total length 14·5 inches, culmen 1·6, wing 10·25, tail 7·5 to 8, depth of fork 5, tarsus 0·7, middle toe and claw 0·85.

Female. Similar, with slightly shorter tail-streamers.

Adult in winter. Forehead and crown mottled with white, underparts paler grey, colours of the bill and feet duller; otherwise as in summer.

Immature. Like the above, but forehead and crown nearly white, a dark grey band on the upper wing-coverts, more grey in the outer webs of the tail-feathers, and underparts white: bill and feet nearly black. Birds in this stage have been named *S. portlandica*; they keep together in large flocks, and as they do not frequent the breeding-places of the adults, they are rarely obtained until after their second autumnal moult, by which time their plumage is almost identical with that of the adult in winter.

Young. Mottled and barred with buff on the upper surface; bill yellow at the base, tip horn-colour; feet yellow up to October, afterwards browner; forehead white, occiput blackish, sides of neck and flanks tinged with buff; a considerable amount of grey in the outer webs of the tail-feathers.

Nestling. Very similar to that of *S. fluviatilis*, with perhaps a tendency to more pronounced black on the throat; upper parts with a buffish ground-colour, which seems to be very variable in tint.

Hab. Circumpolar and northern regions of the Old and New Worlds, breeding from 82° N. lat. (or higher?) down to about 50° N. in Europe and 42° in America. In winter, southwards to the coasts and waters of Peru, Chile, Brazil, Africa, and even to 66° S. lat. in the Southern Ocean!

a. Ad. st.	Scilly Islands.	D. W. Mitchell, Esq. [P.].
b. ♂ ad.; *c*, *d.* Juv. st.	Shoreham, Sussex.	R. B. Sharpe, Esq. [P.].
e. Juv. sk.	Pagham Harbour, Oct. (*R. B. S.*).	Tweeddale Coll.
f. Juv. sk.	Bognor, Sept.	Gould Coll.
g. Juv. st.	Near Croydon, Oct.	Lt.-Col. L. H. Irby [P.].
h. Juv. st.	Halstead.	
i. ♂ juv. sk.	Great Yarmouth, Oct.	Seebohm Coll.
k. ♀ juv. sk.	Blakeney, Aug. 31 (*Dack*).	Hume Coll.
l. Imm. sk.	Spurn Head, Yorks., July (*W. E. Clarke*; "*S. portlandica*" stage).	H. Saunders Coll.

m, *n*. ♂, *o*. ♀ juv. sk.	Holy Id., Northumberland, Sept.	Hume Coll.
p. Pull.; *q*. Juv. sk.	Firth of Tay, Aug. (*P. Henderson*).	H. Saunders Coll.
r–*t*. Ad.; *u*. Pull. sk.	Orkneys, summer.	Salvin-Godman Coll.
v, *w*. Pull. st.	Orkneys.	Purchased.
x, *y*. Pull. st.	Orkneys, June.	Purchased.
z, *a'*. Pull. st.	Orkneys, July 20.	Purchased.
b. ♂ ad. sk.	Orkneys, June (*J. Dunn*).	Gould Coll.
c', *d'*. ♂ ♀ ad. sk.	Orkneys, June (*J. Dunn*).	H. Saunders Coll.
e'. Juv. sk.	Orkneys, Aug. (*J. Dunn*).	H. Saunders Coll.
f'–*g'*. Ad.; *r'*–*t'*. Pull. st.	Mousa, Shetland.	Lt. G. H. Bruce, R.N., and E. M. Nelson, Esq. [P.].
u'. Ad. st.	Hebrides.	Theodore Walker, Esq. [P.].
v'. Juv. sk.	Tenby, Oct. (*H. Saunders*).	Hume Coll.
w', *x'*. Juv. sk.	Tenby, Oct. (*H. Saunders*).	H. Saunders Coll.
y'–*z'*, *a''*. Ad. st.	Ballinamuck, Ireland.	C. Coningham, Esq. [P.].
b''. ♂ ad. sk.	Copeland Is., North Ireland, June 29 (*M. Richardson*).	H. Saunders Coll.
c''. Juv. sk.	Copeland Is., North Ireland, Aug. (*M. Richardson*).	H. Saunders Coll.
d''. ♂ ad. sk.	Reikjavik, Iceland, July 1893 (*G. Stephen*).	H. Saunders Coll.
e'', *f''*. ♂ ad. sk.	Heligoland, May (*H. Gätke*).	Seebohm Coll.
g''. ♀ ad. sk.	Pomerania.	Hume Coll.
h''. ♂ ad. sk.	Muonioniska, Lapland, July.	Hume Coll.
i'', *k''*. ♂ ♀ ad. sk.	Delta of the Petchora, June.	Seebohm Coll.
l''. ♂ vix ad. sk.	Gobelungder, Ob, July 20.	Dr. O. Finsch Coll.
m''–*o''*. ♂ ad. sk.	Yenesei Valley, 69°–71½°, July.	Seebohm Coll.
p''. Ad. sk.	Amoor-land (*Dr. Middendorff*).	Seebohm Coll.
q''. ♂ vix ad. sk.	Coast of Cameroons, October.	H. H. Johnston, Esq. [P.].
r''. Imm. sk.	Table Bay, S. Africa, Aug. (*E. L. Layard*).	H. Saunders Coll.
s''. ♂ vix ad. sk.	At sea, lat. 37° S., long. 57° 18′ E., Oct. 23 (*Earl of Crawford and Balcarres, Voy. Yacht 'Venus'*).	H. Saunders Coll.
t''. ♂ vix ad. st.; *u''*. ♀ vix ad. sk.	At sea, 66° S., 157° W., ("Wilkes' Land") about 12th March.	Antarctic Exped. [P.].
v''. Juv. sk.	H.M.S. 'Constance,' off Arica, Peru (exhausted), Oct. 4 (*Comm. MacFarlane*).	H. Saunders Coll.
w''. Vix ad. sk.	Bahia, Brazil (*Wucherer*).	H. Saunders Coll.
x'', *y''*. Ad. sk.	Massachusetts (*Henshaw Coll.*).	Salvin-Godman Coll.
z''. ♀ ad. sk.	Muskegatt Id., Mass., July (*Henshaw Coll.*).	Salvin-Godman Coll.
*a*³. ♂ imm. sk.	Muskegatt Id., Mass., July (*W. Brewster*; "*S. portlandica*").	H. Saunders Coll.
*b*³. ♀ ad. sk.	Ipswich, Mass. (*C.J. Maynard*).	H. Saunders Coll.

c^3. ♂ ad. sk.	Godbout, Canada, June (*N. A. Comeau*; *Henshaw Coll.*).	Salvin-Godman Coll.
d^3. Ad. sk.	Labrador.	H. Saunders Coll.
e^3. Ad. sk.	Greenland.	Hume Coll.
f^3. Ad. sk.	Hudson Bay.	Gould Coll.
g^3. Ad. sk.	Hudson Bay.	Capt. Blakiston [P.].
h^3. Juv. sk.	Davis Straits (*Hudson Bay Co.*).	H. Saunders [P.].
i^3. ♂ ad. sk.	Watermark Bay, June (*C. Hart*).	H.M.S. 'Discovery' Exp.
k^3. ♂ ad. sk.	Discovery Bay, June (*C. Hart*).	H.M.S. 'Discovery' Exp.
l^3. Pull. sk.	Shift Rudder Bay, Aug. 3, 1876 (*Col. H. W. Feilden*).	H.M.S. 'Alert' Exp.
m^3. ♀ ad. sk.	Franklin River Bay, 79° 25′ N., Aug. 11 (*Col. H. W. Feilden*).	H.M.S. 'Alert' Exp.
n^3, o^3. ♀ ad. sk.	Lat. 82° 27′ N., June 30 (*Col. H. W. Feilden*).	H.M.S. 'Alert' Exp.
p^3. Pull. sk.	Bellot Id., Grinnell Land, 81° 44′ N., Aug. 11, 1876 (*Col. H. W. Feilden*).	H. Saunders Coll.
q^3. Ad. sk.	Slave Lake, July 5, 1861 (*B. R. Ross*).	Bernard R. Ross [P.].
r^3. ♂ ad. sk.	Point Barrow, June (*Dr. Murdoch*).	H. Saunders Coll.
s^3. Ad.; t^3. Vix ad. sk.	Bering Straits.	Capts. Kellett and Wood, R.N. [P.].
u^3. Juv. sk.	Alaska (*E. W. Nelson*).	H. Saunders Coll.
v^3. ♂ ad. sk.	St. Michael's, Alaska, May (*L. M. Turner*).	Salvin-Godman Coll.
w^3–y^3. ♂ ad.; z^3, a^4. Pull.; b^4–d^4. Juv. sk.	St. Michael's, Alaska, July (*E. W. Nelson*).	Salvin-Godman Coll.
e^4. Pull. sk. [?; *cf.* p. 99].	St. Paul's Id., Alaska, July (*C. Drexler*).	Salvin-Godman Coll.
f^4, g^4. Ad. sk.	North-west coast of America.	Capt. Collinson, R.N. [P.].
h^4. Skeleton.	England.	Purchased.
i^4, k^4. Skulls.	Heligoland.	Dr. Günther Coll.

9. Sterna longipennis.

? Sterna camtschatica, *Pallas, Zoogr. Rosso-Asiat.* p. 335 (1811 *); *Bp. C. R.* xliii. p. 645 (1856).

Sterna longipennis, *Nordm. in Ermann's Verz. v. Th. u. Pfl.* p. 17 (1835); *Gray, Gen. B.* iii. p. 659 (1846); *Middend. Reis. Sib., Zool.* p. 246, tab. 25. fig. 4 (1851); *Schrenck, Reis. Amurl.* i. p. 512 (1859); *Schlegel, Mus. P.-Bas,* Sternæ, p. 23 (1863) (as regards Middendorff's specimens only); *Radde, Reis. Sib., Vög.* p. 389 (1863); *Blas. J. f. O.* 1866, p. 59; *Finsch & Hartl. Faun. Centralpolyn.* p. 220 (1867: partim); *Gray, Hand-l. B.* iii. p. 118, no. 11030 (1871); *Finsch, P. Z. S.* 1872, p. 112 (Pelew Is.); *id. Journ.*

* The description given by Pallas from Steller's notes suits this species in some respects, but is so very incorrect in other points that Taczanowski considers it impossible to say to what species it refers (Bull. Soc. Zool. Fr. 1876, p. 262). Nordmann's name is unquestionable as regards adaptation, and has been long, as well as generally, accepted.

Mus. Godeffr. Hft. viii. p. 41 (1875 : same loc.); *Tacz. J. f. O.* 1873, p. 111; *id. op. cit.* 1874, pp. 334, 337; *id. op. cit.* 1875, p. 257; *id. Bull. Soc. Zool. Fr.* 1876, p. 261 (E. Siberia); *id. J. f. O.* 1886, p. 202 (Ussuria); *Saunders, P. Z. S.* 1876, p. 649 (revision); *David & Oustal. Ois. Chine*, p. 526 (1878); *Seebohm, Ibis*, 1879, p. 23 (Kuril Is.); *Finsch, P. Z. S.* 1879, p. 15; *id. Ibis*, 1881, p. 540 (ad., New Britain); *Blakist. & Pryer, Tr. Asiat. Soc. Japan*, viii. (1880) p. 188, *op. cit.* x. (1882) p. 103; *Legge, B. Ceylon*, pt. iii. p. 1016 (1880); *Salvad. Ann. Mus. Civ. Genova*, xviii. p. 407 (1882); *id. Orn. Papuasia*, iii. p. 439 (1882: Halmahera); *Tacz. Bull. Soc. Zool. Fr.* 1882, p. 397 (Kamschatka); *id. op. cit.* 1885, p. 477 (Ussuria); *Blakist. & Pryer, Amend. List B. Jap.* p. 10, no. 63 (1884); *W. O. Grant, P. Z. S.* 1888, p. 204 (Solomon Is.); *Tristr. Cat. Coll. B.* p. 9 (1889); *Seebohm, B. Japan. Emp.* p. 296 (1890); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 354 (1890); *Hartert, Katal. Vogelsamml. Senckenb.* p. 239 (1891); *De la Touche, Ibis*, 1892, p. 503 (Foochow); *Wiglesw. Abh. zool. Mus. Dresd.* 1890–91, no. vi. p. 74 (1892).

? Hydrocecropis camtchatika, *Boie, Isis*, 1844, p. 179.

Hydrocecropis longipennis, *Boie, Isis*, 1844, p. 179.

Sterna camtschatika, *Kittl. Denkw. Reise*, i. p. 322, & ii. p. 208 (1858: Kamschatka); *Stejneger, Naturen*, 1884, p. 8; *id. Expl. Commander Is.* p. 83 (1885); *id. Pr. U.S. Nat. Mus.* xiv. p. 490 (1891: Hitachi, Japan).

Sterna glacialis, *Kittlitz, Denkw. Reise*, i. p. 322 (1858).

Sterna melanorhyncha, *Finsch, Neu-Guinea*, p. 184 (1865: *nec Gould*).

? Sterna frontalis, *Finsch, Vög. Südsee*, pp. 21 & 540 (1884: New Britain).

Adult in breeding-plumage. Similar to *S. macrura*, but with a slightly darker tint on the upper parts, vinaceous grey on the underparts, a black bill, and blackish feet; the stripe inside the shafts of the outer primaries quite as wide as in *S. fluviatilis*. Total length 14·5 inches, culmen 1·6, wing 10·6, tail 7·1, depth of fork 4·5, tarsus 0·75, middle toe and claw 0·9.

Adult in winter. Forehead flecked with white, otherwise similar.

Immature. Like that of *S. fluviatilis*, from which it can hardly be distinguished except by the colour of the bill and feet, and the somewhat smaller size and more delicate shape of the latter.

Although young birds are not easily recognized, yet *S. longipennis* is an excellent species, intermediate between *S. fluviatilis* and *S. macrura*; resembling the former in its vinaceous tint and the latter in the pure white rump and long tail-streamers of the adult.

Hab. Lake Baikal, Amur-land, Kamschatka, Japan, China coast, Malacca, Ceylon, Papuasia to New Guinea.

a, b. Vix ad. st.	Kamschatka.	Purchased.
c. Ad. sk.	Kamschatka.	H. Saunders Coll.
d. Ad. sk.	Kamschatka.	Seebohm Coll.
e. Ad. sk.	Kamschatka, June.	Capt. Blakiston [P.].
f. Ad. sk.	Lake Baikal, June.	H. Saunders Coll.
g. ♂ ad. sk.	Amur-land (*B. Maack*).	H. Saunders Coll.
h. Ad. sk.	Kobe, Japan, May (*Ouston & Snow*).	H. Saunders Coll.
i–m. Ad. sk.	Kobe, Japan, May (*Ouston & Snow*).	Seebohm Coll.

n. Ad. sk.	Yezo, Japan (*Adml. St. John*).	Tweeddale Coll.
o. Imm. sk.	Swatow, China, autumn (*F. Styan*).	H. Saunders Coll.
p. Imm. sk.	New Guinea.	Wallace Coll.
q. Imm. sk.	New Guinea (*A. R. Wallace*).	Tweeddale Coll.
r, s. ♂ imm. sk.	Solomon Islands.	C. M. Woodford, Esq. [C.].
t. ♂ imm. sk.	Rubiana, Solomon Islands, March.	C. M. Woodford, Esq. [C.].
u, v. ♂ imm. sk.	Tongka, Malay Peninsula, May (*W. Davison*).	Hume Coll.
w.	Malacca.	Hume Coll.
x. ♂ imm. sk.	Tmiso, Ceylon, June (*Col. W. V. Legge*).	Hume Coll.

10. Sterna albigena.

Sterna albigena, *Licht. Nomencl. Av.* p. 98 (1854) (Arabia and Nubia): *Reichenb. Natat., Suppl.* xi. pl. xxi. fig. 816 (1850); *König-Warth. Ibis*, 1860, p. 432; *Heugl. in Peterm. Mitth.* 1861, p. 29, no. 307 (descr.); *id. Faun. Roth. Meer.* p. 32 (1861); *A. E. Brehm, Reis. Habesch*, p. 229 (1863: Red Sea); *Schleg. Mus. P.-Bas*, Sternæ, p. 20 (1863); *Blas. J. f. O.* 1866, pp. 75, 79, 86, 87 (critical); *Finsch & Hartl. Vög. Ost-Afr.* iv. p. 834, tab. x. fig. 2 (1870); *Walden, Ibis*, 1876, p. 384 (Hurnee, Bombay); *Saunders, P. Z. S.* 1876, p. 648 (revision Sterninæ); *Hume, Str. F.* 1876, p. 467 (Laccadives); *Butler, op. cit.* 1877, p. 298 (Mekran coast); *id. tom. cit.* p. 323 (Karachi); *Hume, op. cit.* viii. 1879, p. 116 (List); *Vidal, op. cit.* ix. 1880, p. 94 (Malabar coast) (in coll.); *Tweedd. Mem.* p. 436 (1881); *Salvin, Cat. Strickl. Coll.* p. 623 (1882); *Verbury, Ibis*, 1886, p. 23 (Aden); *Hartert, Katal. Vogelsamml. Senckenb.* p. 239 (1891); *Barnes, Ibis*, 1893, p. 176 (Aden); *Sharpe, Bull. B. O. C.* xi. p. v (1893: Suakin).

Hydrocecropis albigena, *Boie, Isis*, 1844, p. 179.

Hydrochelidon albigena, *Bp. C. R.* xlii. p. 773 (1856); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1451 (1871); *Gray, Hand-l. B.* iii. p. 122, no. 11077 (1871).

Sterna senegalensis, *Heugl. Ibis*, 1859, p. 351 (Red Sea) (*nec Swains.*); *id. Peterm. Mitth.* 1860, pp. 339, 349; *König-Warth. Ibis*, 1860, p. 125 (*cf.* p. 432) (Red Sea).

Adult in breeding-plumage. Similar to the foregoing, but the mantle of a much darker grey, the secondaries merely edged with white and chiefly smoke-grey, the shafts of the inner primaries brownish white; the rump and tail-feathers grey like the mantle, with darker outer webs to the streamers; underparts vinaceous grey, much darker than in *S. fluviatilis*; under tail-coverts and wing-coverts paler grey: bill slender, much elongated in front of the angle, orange-red at the base, the anterior portion horn-coloured: "irides deep brown" (*Hume*); tarsi and feet orange-yellow, delicate, slender, with long claws. Total length 14 inches, culmen 1·6, wing 9·8, tail 6·5, depth of fork 3·35, tarsus 0·75, middle toe and claw 0·95. The sexes are alike in plumage, with, perhaps, shorter streamers in the female.

Adult in winter. Forehead mottled with white, and the under-

parts slightly variegated with the same. This evidently lasts for only a short time in mature birds.

Immature and young. The former like the above, with rather more white and with a dark band on the upper wing-coverts; bill livid, feet yellowish brown. In the young the dark band is more pronounced, the forehead and crown are greyish, and the entire underparts are white; the bill nearly black.

Hab. Lower Red Sea, Mekran Coast, Arabian Sea, Laccadives (breeding); Malabar Coast.

a. Ad. sk.	Suakin, Red Sea.	Capt. R. H. Penton [P.].
b. ♂ imm.; *c*, *d.* ♀ imm. sk.	Karachi, April (*Col. E. A. Butler*).	Hume Coll.
e. Ad.; *f.* Imm. sk.	Hurnee, near Bombay.	Tweeddale Coll.
g. ♂ ad.; *h*, *i.* ♀ ad.; *k–m.* ♀ imm. sk.	South Konkan, Malabar Coast, April 25 (*G. Vidal*).	Hume Coll.
n. ♀ ad. sk.	Viziadroog, Malabar Coast, May 5.	Hume Coll.
o, *p.* ♂ imm. sk.	Laccadive Is., Feb. 13 (*J. Armstrong*).	Hume Coll.

11. Sterna dougalli.

The Roseate Tern.

? Larus polo-condor, *Sparrm. Mus. Carls.* ii. fasc. iii. no. 83 (1788; Polo-Condor Island *); cf. *Sundev. Kritisk Sparrm.* p. 13 (1857).

? Polo-Condor Gull, *Lath. Gen. Syn. Suppl.* ii. p. 332 (1801).

? Larus pulo-condor, *Lath. Ind. Orn. Suppl.* p. lxviii (1801); *Gray, Gen. B.* iii. p. 654 (1846).

Sterna dougalli, *Mont. Orn. Dict. Suppl.* fig. [no pagination] 1813; *Leach, Syst. Cat. M. &c. Brit. Mus.* p. 41 (1816); *Cuv. Règne An., Ois.* p. 344, *Atlas*, pl. 93 (1817); *Vieill. N. Dict. Hist. Nat.* xxxii. p. 174 (1819); *Temm. Man. d'Orn.* ed. 2, p. 738 (1820); *Boie, Isis*, 1822, p. 563; *Meyer, Taschenb.* iii. p. 187 (1822); *Brehm, Beitr. Vögelk.* iii. p. 673 (1822); *Vieill. Enc. Méth.* i. p. 349 (1823); *Brehm, Lehrb.* p. 686 (1824); *Steph., in Shaw's Gen. Zool.* xiii. pt. 1, p. 153 (1826); *Werner, Atlas, Palmipèdes*, pl. 5 (1828); *Vieill. Faune Franç., Ois.* p. 399, pl. 161. fig. 1 (1828); *Fleming, Br. An.* p. 143 (1828); *Brehm, Vög. Deutschl.* p. 779 (1831); *Lesson, Traité*, p. 621 (1831: Bengal); *Savi, Orn. Tosc.* iii. p. 93 (1831); *Selby, Brit. B.* ii. p. 470, pl. 89. figs. 1 & 2 (1833); *Vieill. Gal. Ois.* ii. p. 225, pl. 290 (1834); *Nuttall, Man. Orn.* ii. p. 278 (1834); *Jenyns, Man. Brit. Vertebr.* p. 265 (1835); *Audub. Orn. Biogr.* iii. p. 296, pl. 240 (1835); *Gould, B. Eur.* v. pl. 418 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838); *Audub. Synop.* p. 320 (1839); *Schinz, Europ. Faun.* p. 372 (1840); *Eyton, Cat. Brit. B.* p. 55 (1836); *Crespon, Orn. Gard*, p. 473 (1840); *Naum. Vög. Deutschl.* x. p. 78, pl. 251 (1840); *Temm. Man. d'Orn.* 2nd ed. 4me pte. p. 457 (1840); *Selys-Longch. Faun. Belg.* p. 150 (1842); *Audub. B. Amer.* 8vo ed. vii. p. 112, pl. 437 (1844); *Giraud, B. Long Isl.* p. 351 (1844); *Cabot, Pr. Bost.*

* A very young bird, little more than a fledgling; the white edges to the primaries indicate that it belongs to this species or to *S. melanauchen*.

Soc. ii. p. 248 (1844); *Crespon, F. Mérid.* ii. p. 117 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 501 (1845); *Hewits. Eggs Br. B.* ii. p. 425, pl. 119 (1846); *Reichenb. Natat.* tab. xxii. figs. 824–825 (1848); *Kjærb. Danm. Fugle*, p. 328, tab. 40 A (1852), *Suppl.* tab. 20. fig. 2 (1854); *Licht. Nomencl. Av.* p. 98 (1854); *Putnam, Pr. Essex Inst.* i. p. 221 (1856: Massachusetts); *Meyer, Brit. B.* vii. p. 87, pl. 292 (1857); *Jones, Nat. Bermuda*, p. 91 (1859); *Godman, Ibis*, 1866, p. 103 (Azores); *Degl. & Gerbe, Orn. Eur.* ii. p. 459 (1867); *Turnbull, B. E. Penn.* p. 38 (1869); *Droste, Vogelw. Borkum*, p. 326 (1869) [very doubtfully]; *Sundev. K. Vet.-Akad. Stock. Förh.* 1869, p. 589 (St. Bartholomew I.); *Godman, Azores*, p. 38 (1870); *Scl. & Salv. P. Z. S.* 1871, p. 571 (revision, Neotropical); *R. Gray, B. West Scotl.* p. 466 (1871); *Harting, Handb. Br. B.* p. 76 (1872); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 147 (1873); *Coues, B. N.-West*, p. 688 (1874); *Rosenb. Reistocht. Geelvinkb.* p. 118 (1875); *Legge, Str. F.* iii. p. 376 (1875); *id. op. cit.* iv. p. 246 (1876); *Hume, t. c.* p. 294 (Andaman Is.); *Saunders, P. Z. S.* 1876, p. 652 (revision); *Dresser, B. Eur.* viii. p. 273, pl. 581 (1876); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 51 (1876: Tehuantepec); *Sharpe, Rep. Trans. Venus (Rodriguez), Ph. Tr.* vol. 168. p. 464 (1878); *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 201 (1878); *Hume & Davison, Str. F.* vi. p. 492 (1878: Tenasserim); *id. op. cit.* viii. p. 116 (1879: List); *Parker, op. cit.* ix. p. 489 (1880: Ceylon, breeding); *Legge, B. Ceylon*, p. 1033 (1880); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Giglioli, Ibis*, 1881, p. 218 (Massaciuccoli); *Milne-Edwards & Grand. N. H. Madag., Ois.* p. 657 (1882); *Salvad. Orn. Papuasia &c.* iii. p. 407 (1882); *Coues, Check-list N. Amer. B.* p. 123 (1882); *Salvin, Cat. Strickl. Coll.* p. 624 (1882); *B. O. U. List Brit. B.* p. 181 (1883); *Oates, B. Burmah*, ii. p. 425 (1883); *Sharpe, ed. Layard's B. S. Afr.* p. 702 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 303 (1884); *Saund. 4th ed. Yarr. Brit. B.* iii. p. 544 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 766 (1884); *Sharpe, Rep. Voy. 'Alert,'* p. 281 (1884: Torres Str.); *Seebohm, Brit. B.* iii. p. 277 (1885); *Wells, Pr. U.S. Nat. Mus.* ix. p. 632 (1886: Grenada); *Giglioli, Avif. Ital.* p. 414 (1886); *Wells, Pr. U.S. Nat. Mus.* ix. p. 632 (1886: Grenada, breeds); *Booth, Rough Notes*, iii. (1887); *A. O. U. Check-list N. Amer. B.* p. 94 (1886); *Salvad. Ucc. Ital.* p. 277 (1887); *Ridgw. Man. N. Amer. B.* p. 44 (1887); *Seebohm, Ibis*, 1887, p. 181 (Loochoo Is.); *Oates, ed. Hume's Nests & Eggs Ind. B.* iii. p. 301 (1887); *E. Newton, Tr. Norf. Soc.* iv. p. 553 (1888: Mascarene Is.); *Cory, B. West Ind.* p. 279 (1889); *Albarda, Tijdschr. Nederl. Dierk. Ver.* (2) ii. p. 10 (Friesland, Nov.); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 61 (1889); *Riesenthal, Wasservög. Mitteleur.* p. 144 (1889); *Saunders, Man. Brit. B.* p. 629 (1889); *Tristr. Cat. Coll. B.* p. 9 (1889); *More, List Irish B.* ed. 1890, p. 27; *Stevenson & Southwell, B. Norfolk*, iii. p. 300 (1890); *Stejneger, Pr. U.S. Nat. Mus.* xiv. p. 489 (1891: Hitachi, Japan); *Ogilvie-Grant, Ibis*, 1890, p. 442 (Madeira); *Gätke, Vogelw. Helgol.* p. 554 (1891); *Campbell, Pr. R. Soc. Victoria*, iii. pl. 1. figs. 2 & 8 (1891); *Saunders, Ibis*, 1891, p. 187 (Lake Léman); *Cory, Cat. W. Ind. B.* p. 82 (1892); *Hartert, Ibis*, 1893, p. 310 (Aruba I.); *Ussher, Pr. R. Irish Acad.* (3) iii. p. 409 (1894); *Lilford, Col. Fig. Brit. B.* pt. xxviii. (1894).

Thalassæa dougalli, *Kaup, Natürl. Syst.* pp. 97 & 196 (1829) [type and sole representative of genus].

Sterna paradisea, *Keys. & Blas. Wirb. Eur.* p. 247 (1840) (*nec Brünn.*); *Bp. Cat. Ucc. Eur.* p. 76 (1842); *Mühle, Orn. Griechenl.* p. 146 (1844); *Gray, List B. Brit. Mus.*, Anseres, p. 178 (1844); *Schl. Rev. Crit.* p. cxxx (1844); *Gray, Gen. B.* iii. p. 659 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 292 (1849); *Degl. Orn. Eur.* ii. p. 346 (1849); *Thomps. B. Irel.* iii. p. 271 (1851); *Baird, Cass., & Lawr. B. N. Amer.* p. 863 (1858); *Baird, Cat. N. Amer. B.* no. 692 (1859); *Jaub. et Lapomm. Rich. Orn. Fr.* p. 405 (1859); *Linderm. Vög. Griechenl.* p. 179 (1860); *Coues, Pr. Phil. Acad.* 1862, p. 551; *Gray, Cat. Brit. B.* p. 239 (1863); *Coues, Ibis*, 1864, p. 389; *Salvin, op. cit.* 1866, p. 199 (Brit. Honduras); *Léot. Ois. Trinid.* p. 539 (1866); *Lawr. Ann. Lyc. N. Y.* viii. p. 299 (1866); *Coues, Pr. Essex Inst.* 1868, p. 60 (Massachusetts, breeding); *id. Pr. Bost. Soc.* xii. p. 126 (1868); *Borggr. Vogelf. Norddeutschl.* p. 144 (1869), fide *Keys. u. Blas.*; *Fritsch, Vög. Eur.* p. 457, Taf. 57. fig. 1 (1870); *Allen, Amer. Nat.* iii. p. 643 (1870); *Gray, Hand-l. B.* iii. p. 119, no. 11038 (1871); *Coues, Key N. Amer. B.* p. 321 (1872); *Gould, B. Gt. Brit.* v. pl. 71 (1873); *Walden, Ibis*, 1874, p. 149, and *Hume, Str. Feath.* iii. p. 501 (1875: Andaman Is.); *Gundl. Orn. Cuba*, p. 310 (1876); *Cory, B. Bahamas*, p. 212 (1880); *id.* ed. 1890, p. 212; *Olphe-Gall. Contr. Faun. Eur. Occid.* livr. x. p. 19 (1886).

Sterna macdougalli, *Macgill. Man. Br. Orn.* pt. ii. p. 233 (1842); *id. Br. B.* v. p. 648 (1852).

The Roseate Tern, *Yarr. Brit. B.* iii. p. 393 (1843).

Hydrocecropis dougalli, *Boie, Isis*, 1844, p. 179.

Sterna gracilis, *Gould, P. Z. S.* 1845, p. 76; *id. op. cit.* 1847, p. 222 (Houtman's Abrolhos); *id. B. Austr.* vii. pl. 27 (1848); *Reichenb. Vög. Neuholl.* p. 346 (1850); *Gray, P. Z. S.* 1859, p. 166 (New Caledonia); *id. Cat. Mamm. & B. New Guin.* p. 63 (1859); *id. Cat. B. Trop. Is. Pacif. Oc.* p. 58 (1859); *Gould, Handb. B. Austr.* ii. p. 399 (1865); *Finsch & Hartl. Faun. Centralpolyn.* p. 215 (1867); *Gray, Hand-l. B.* iii. p. 119, no. 11039 (1871); *Holdsw. P. Z. S.* 1872, p. 481 (Ceylon); *Hume, Str. Feath.* ii. p. 317 (1874: Andaman Is.); *Legge, Str. F.* iii. p. 376, no. 986 bis (1875: Ceylon); *Layard, Ibis*, 1878, p. 265 (New Caledonia); *id. op. cit.* 1880, p. 233 (Loyalty Is., east of N. C.); *id. op. cit.* 1882, p. 540 (N. C.); *Ramsay, Pr. Linn. Soc. N. S. W.* iv. p. 84 (1880); *id. op. cit.* vii. p. 41 (1883: Solomon Is.); *Tristram, Ibis*, 1882, p. 144 (Solomon Is.); *id. Cat. Coll. B.* p. 9 (1889).

? Rissa polo-condor, *Reichenb. Natat., Novit.* xi. tab. cclxxiv. fig. 2278 (1850).

Sterna bicuspis, *Licht. Nomencl. Av.* p. 98 (1854: Bahia, Brazil)*.

Sterna tenuirostris, *Licht. Nomencl. Av.* p. 98 (1854: East Indies)*.

Sterna douglasi, *Schleg. Mus. P.-Bas*, Sternæ, p. 24 (1863); *Blasius, J. f. O.* 1866, p. 80; *Schl. & Poll. Faun. Madag.* p. 147 (1868); *Salvad. Faun. Ital., Ucc.* p. 281 (1871); *Hartl. Vög. Madag.* p. 385 (1877).

Sterna melanorhyncha, *E. Newton, Ibis*, 1863, p. 460 (Tamatave, Madagascar); *Masters, Pr. Linn. Soc. N. S. Wales*, 1876, p. 62; *E. P. Ramsay, P. Z. S.* 1877, p. 347 (Queensland).

Sternula korustes, *Hume, Str. F.* 1874, p. 318 (Andaman Is.).

? Sterna nigrifrons, *Masters, Pr. Linn. Soc. N. S. W.* p. 62 (1876: Warrior Reef).

Sterna dougalli gracilis, *Cory, Cat. West-Ind. B.* pp. 82, 135 (1892).

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* The type of each in the Berlin Museum examined.

Adult in breeding-plumage. Forehead, upper lores, crown, and nape black, neck white, mantle pale pearl-grey; the primaries a little darker, the inner margins of their webs with conspicuous white borders, which extend to the extreme tips, and even slightly ascend the outer webs, the outer webs and the lines parallel to the inside of the white shafts black to grey, according to the amount of frosting; rump and tail-feathers very pale grey to white, the outer webs of the long streamers quite white; underparts white, with a beautiful pink tinge, which is very evanescent: bill orange at the base, the anterior part from the angle black; tarsi and toes orange-red. By the end of May (in the northern hemisphere) the amount of black on the bill has largely increased. Total length 15·5 inches, culmen 1·9, wing 9·25, tail 7·5 to 8, depth of fork about 5, tarsus 0·85, middle toe and claw 1. The tail-streamers are probably a trifle longer in the male; otherwise the sexes are alike in plumage.

Adult in winter. Similar to the above, but with the forehead spotted with white, the underparts nearly white, with little pink tint; bill nearly black.

Immature. Like the above, with a brownish tinge in the black of the head and nape, a dark grey band along the upper wing-coverts; dark grey centres to the inner secondaries; more grey in the primaries, with less pronounced white inner margins; some grey in the outer webs of the tail-feathers, except those of the streamers, which are always white.

Young. Like the above, with the addition of ash-brown mottlings and striations on the upper parts. When the bird is just fledged, the markings are arrow-headed in shape, and the upper parts are tinged with a warm buff.

North-American birds are on average a trifle larger than Eastern examples.

This is essentially a Sea-Tern, usually depositing its eggs on low islands, though sometimes on sandy coasts. On migration, it occasionally visits large inland sheets of water, such as Lake Léman. It remains in the northern part of its range for a very short time, being the last of the Terns to arrive and the first to leave.

Hab. Coasts of Atlantic and (sparingly) North Sea, from 57° N. lat. in summer to the Mediterranean, Azores, and Madeira; North-west, South-east, and East Africa; Mascarene Islands; Ceylon; Sea and Bay of Bengal, Andaman Islands (breeding); Tenasserim, Malayasia; China seas up to Loo-choo Islands; Moluccas, Australia (except the south), and New Caledonia (breeding). In North America, the east side from Massachusetts southwards to Venezuela, and the West Indian Islands (breeding).

a. Ad. sk.	Firth of Clyde (type of species).	Col. Montagu [P.].
b. ♂ ad. sk.; *c, d.* Ad. st.	Farne Is., Northumberland, Aug.	R. W. Chase, Esq. [P.].
e. Ad. st.	Scilly Islands.	Jas. Griffin, Esq. [P.].

f. Ad. st.; *g*. Ad. sk.	Scilly Islands.	D. W. Mitchell, Esq. [P.].
h. ♀ ad. sk.	Madeira, May.	W. R. Ogilvie-Grant, Esq. [P.].
i. ♂ ad. st.; *k*. ♀ ad. sk.	Cape of Good Hope.	Sir A. Smith [P.].
l. Imm. sk.	Cape of Good Hope.	Dr. Crozier [P.].
m–o. Ad. sk.	Port Elizabeth, Algoa Bay.	H. Saunders Coll.
p. Ad. sk.	I. of Rodriguez (*Rev. H. H. Slater*).	Transit of Venus Exped.
q–s. Ad. sk.	Amblangoda, Ceylon, May (*H. Neville*).	Tweeddale Coll.
t, u. ♂ ad. sk.	Trincomalee, June (*Col. W. V. Legge*).	H. Saunders Coll.
v. ♀ ad. sk.	Andaman Islands, Aug. (*Capt. J. R. Wimberley*).	Hume Coll.
w. ♀ ad. sk.	South Andaman, May (*R. D. Wimberley*).	Hume Coll.
x. ♂ ad.; *y, z*. ♀ ad. sk.	South Andaman, May–June (*R. D. W.*)	H. Saunders Coll.
a'–b'. ♂ ad.; *c'*. ♀ ad. sk.*	Port Blair, South Andaman, July (*R. D. W.*).	Hume Coll.
d'–e'. ♂ ad. sk.	Port Blair, S. Andaman, May (*R. D. W.*).	Tweeddale Coll.
f', g'. ♀ ad. sk.	Port Blair, S. Andaman, Aug. (*R. D. W.*).	Tweeddale Coll.
h'–k'. ♂ ad.; *l'–p'*. ♀ ad. sk.	South Andaman Island, May, June, Sept. (*F. A. de Roepstorf*).	Hume Coll.
q'–s'. ♂ ad. sk.	Laynah Creek, Tenasserim, May 20 (*W. Davison*).	Hume Coll.
t'. ♂ imm. sk.	Laynah Creek, Tenasserim, May 20 (*W. Davison*).	H. Saunders Coll.
u'. ♀ ad. sk.	Mysol (*A. R. Wallace*).	Tweeddale Coll.
v'. Juv. sk.	Torres Straits (*J. Gould*).	H. Saunders Coll.
w'. ♀ ad. sk.	Campbell Id., Torres Straits, March.	Gould Coll.
x', y'. Imm. sk.	Cape York, Torres Straits (*Cockerell*).	Salvin-Godman Coll.
z'. ♂ juv. sk.	Channel Rock, Torres Straits.	Voy. H.M.S. 'Alert.'
a''. Ad. st.	South Island, West Australia.	Gould Coll.
b''. ♂ ad. st.	Bird Island.	Capt. Owen Stanley, R.N. [P.].
c''. Ad. sk.	New Caledonia (*Macgillivray*).	H. Saunders Coll.
d''. Juv. sk.	New Caledonia (*E. L. Layard*).	Seebohm Coll.
e''. ♂ ad.; *f''*. ♀ ad. sk.	Noumea, New Caledonia, Sept. (*E. L. L.*).	H. Saunders Coll.
g''. ♂ ad.; *h''*. ♀ ad. sk.	Noumea and Ansevata, Dec. & Oct. (*E. L. L.*).	Seebohm Coll.
i''. Ad. sk.	Massachusetts (*Maynard*).	Salvin-Godman Coll.
k''. ♀ ad. sk.	Nantucket, Massachusetts, July (*W. Brewster*).	Salvin-Godman Coll.
l'', m''. ♀ juv. sk.	Chatham, Massachusetts, Sept. (*F. H. Brackett*).	Salvin-Godman Coll.

* One of these is the type of *Sternula korustes*, Hume.

n'', *o''*. ♂ ad. sk.	Muskegatt I., Mass., July.	Capt. Clarke Kennedy [P.].
p'', *q''*. Ad. sk.	Muskegatt I., Mass., June.	H. Saunders Coll.
r''. ♀ ad. sk.	New Haven, Conn., June (*C. H. Merriam*).	Salvin-Godman Coll.
s''. Ad. sk.	Florida, June (*C. H. Merriam*).	Salvin-Godman Coll.
t'', *u''*. ♂ ad. sk.	Grassy Cay, Turneff, Brit. Honduras, May (*O. Salvin*).	Salvin-Godman Coll.
v''. ♂ ad. sk.	Antigua, W. Indies, June (*C. B. Cory*).	Salvin-Godman Coll.
w''. ♀ vix ad. sk.	Guadeloupe, W. Indies, Sept. (*C. S. Winch*).	Salvin-Godman Coll.
x'', *y''*. Ad.; *z''*. Imm. sk.	St. Vincent, W. Indies, Aug. (*D. W. Smith*).	Salvin-Godman Coll.
a^3. Skeleton.	No locality.	Warwick [Purch.].
b^3. Skeleton.	Zoological Society's Coll.	Presented.
c^3, d^3. Skeletons.	Rodriguez Island (*Rev. H. H. Slater*).	Transit of Venus Exped.

12. Sterna cantiaca.

? African Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 354 (1785: juv.).

Sandwich Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 356 (1785); *id. Gen. Syn. Suppl.* i. p. 606 (1787); *Bewick, Brit. B.* ii. p. 188 (1821); *Yarr. Brit. B.* iii. p. 389 (1843).

Sterna sandvicensis, *Lath. Syn. Suppl.* i. p. 296 (1757)*; *Southwell, in Stevenson's B. Norfolk*, iii. p. 299 (1890).

? Sterna africana, *Gm. S. N.* i. p. 605 (1788: *ex Lath.*, juv.); *Lath. Ind. Orn.* ii. pp. 804, 805 (1790).

Sterna cantiaca, *Gm. S. N.* i. p. 606 (1788) [*ex Lath.*]; *Temm. Man. d'Orn.* p. 479 (1815), 2nd ed. p. 735 (1820); *Koch, Syst. baier. Zool.* p. 365 (1816); *Brehm, Beitr. Vögelk.* iii. p. 664 (1822); *Licht. Verz. Doubl.* p. 81 (1823) (S. France); *Brehm, Lehrb. Eur. Vög.* p. 685 (1824); *Steph. in Shaw's Gen. Zool.* xiii, pt. 1, p. 147 (1825); *Audub. B. Amer.* fol. pl. 279 (c. 1826); *Werner, Atlas, Palmipèdes*, pl. 3 (1828); *Savi, Orn. Tosc.* p. 87 (1831); *Lesson, Traité*, p. 621 (1831); *Audub. Orn. Biogr.* iii. p. 531 (1835); *Jenyns, Man. Brit. Vertebr.* p. 265 (1835); *Eyton, Cat. Brit. B.* p. 54 (1836); *Gould, B. Eur.* v. pl. 415 (1837); *Audub. Synop.* p. 317 (1839); *id. B. Amer.* 8vo, vii. p. 87, pl. 431 (1844); *Schinz, Europ. Faun.* i. p. 371 (1840); *Naum. Vög. Deutschl.* x. p. 50, pl. 250 (1840); *Crespon, Orn. Gard*, p. 472 (1840); *Keys. u. Blas. Wirb. Eur.* pp. xcvii & 247 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 277 (1840); *Eversm. Add. Pall. Zoogr. Rosso-Asiat.* fasc. iii. p. 19 (1842); *Macgill. Man. Brit. Orn.* pt. ii. p. 230 (1842); *Selys-Longch. Faun. Belg.* p. 149 (1842); *Mühle, Orn. Griechenl.* p. 146 (1844); *Schl. Rev. Crit.* p. cxxxix (1844); *Crespon, Faun. Mérid.* ii. p. 116 (1844); *Gray, Gen. B.* iii. p. 659 (1846); *Hewits. Eggs Brit. B.* ii. p. 423, pl. 118 (1846); *Reichenb. Natat.* tab. xix. figs. 262–264 (1848); *Degl. Ois. Eur.* ii. p. 339 (1849); *Thomps. B. Irel.* iii. p. 268 (1851); *Macgill. Brit. B.* v. p. 630 (1852); *Brandt, in Lehmann's Reis. n. Buchara*, p. 330 (1852: Caspian); *Kjærb. Danm. Fugle*, p. 327, tab. 40A (1852), and *Suppl.* tab. 20. figs. 3 & 4 (1854); *Bailly, Orn. Savoie*, iv. p. 292

* *Nomen nudum*, subsequently ignored by Latham, who (Ind. Orn. ii. p. 806, 1790) named the species *S. boysii*.

(1854: Lac du Bourget); *Schl. Vog. Nederl.* p. 611, pl. 359 (1854); *Heugl. Syst. Uebers.* p. 70 (1856: N. Egypt); *Meyer, Brit. B.* vii. p. 76, pl. 290 (1857); *Hartl. Orn. W.-Afr.* p. 255 (1857); *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 402 (1859); *Cass. Pr. Philad. Ac.* 1859, p. 175 (Camma river, W. Africa); *Linderm. Vög. Griechenl.* p. 179 (1860); *Powys, Ibis*, 1860, p. 356 (Epirus); *Schl. Dier. Nederl. Vogels*, p. 240 (1861); *Gray, Cat. Brit. B.* p. 239 (1863); *Schl. Mus. P.-Bas*, Sternæ, p. 5 (1863); *Salvad. Ucc. Sard.* p. 121 (1864); *Wright, Ibis*, 1864, p. 152 (Malta); *Layard, B. S. Afr.* p. 370 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 452 (1867); *Bocage, Jorn. Lisb.* 1867, p. 152 (Benguela); *Gurney, Ibis*, 1868, p. 262 (S. Africa); *Borggr. Vogelf. Norddeutschl.* p. 144 (1869); *Doderl. Avif. Sicil.* p. 241 (1869); *Droste, Vogelw. Borkum*, p. 321 (1869); *Salvad. Faun. Ital., Ucc.* p. 279 (1871); *Saunders, Ibis*, 1871, p. 398 (Spain); *Scl. & Salv. P. Z. S.* 1871, p. 569 (revision, Neotropical); *Pelz. Orn. Bras.* p. 324 (1871: Rio de Janeiro); *Gray, Hand-l. B.* iii. p. 119, no. 11044 (1871); *Shelley, B. Egypt*, p. 279 (1872); *Harting, Handb. Brit. B.* p. 76 (1872); *Godman, Ibis*, 1872, p. 222 (Canaries); *Shelley & Buckley, Ibis*, 1872, p. 293 (Acra); *Gurney, in Anderss. B. Dam. Ld.* p. 361 (1872); *Coues, Key N. Amer. B.* p. 320 (1872); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 147 (1873); *Hume, Str. F.* i. p. 285 (1873: Sind &c.); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1428 (1873); *Brooke, Ibis*, 1873, p. 346 (Sardinia); *Durnf. Ibis*, 1874, p. 401 (breeds, N. Frisian Is.); *Hume, Nests & Eggs Ind. B.* p. 655 (1875); *Shelley, Ibis*, 1875, p. 87 (Capetown); *Irby, Orn. Str. Gibr.* p. 209 (1875); *Blanf. East. Pers.* ii. p. 294 (1876); *Sharpe & Bouvier, Bull. Soc. Zool. France*, 1876, p. 314; *Saund. P. Z. S.* 1876, p. 653 (revision); *Dresser, B. Eur.* viii. p. 301, pl. 586 (1877); *Reichenow, J. f. O.* 1877, p. 10 (Loango); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 65 (1878: Texas, breeds); *Cory, B. Bahamas*, p. 211 (1880); *Bocage, Orn. Angola*, p. 512 (1881); *Coues, Check-l. N. Amer. B.* p. 123 (1882); *Seeb. Ibis*, 1882, p. 230 (Seal Is., N. Caspian, breeds); *Collett, Föhr. Selsk. Chr.* 1883, no. 15, p. 2 (Norway); *B.O.U. List Brit. B.* p. 183 (1883); *Sharpe, ed. Layard's B. S. Afr.* p. 702 (1884); *Saund. 4th ed. Yarr. Brit. B.* iii. p. 540 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 761 (1884); *Seeb. Brit. B.* iii. p. 272 (1885); *Whitehead, Ibis*, 1885, p. 47 (Corsica); *Homeyer, Ornis*, 1885, p. 81; *Lutke, t. c.* p. 145 (Denmark, breeding); *D. Torre & Tschusi, t. c.* p. 563 (Adriatic); *Alburda, t. c.* p. 630 (Holland, breeding); *Büttikof. Notes Leyd. Mus.* 1885, p. 249; *id. op. cit.* 1886, p. 267; *id.* 1888, p. 106 (Liberia); *O. Winge, op. cit.* 1886, p. 592 (Denmark); *Alléon, Ornis*, 1886, p. 424 (Dobrudsha, breeding); *Booth, Rough Notes*, iii. fig. (1887); *Tait, Ibis*, 1887, p. 394 (Portugal); *Riesenth. Wasservög. Mitteleurop.* p. 142 (1882); *Reichenow, Syst. Verz. Vög. Deutsch.* p. 61 (1889); *Saunders, Man. Brit. B.* p. 627 (1889); *Salvin, Ibis*, 1889, p. 379 (Cozumel); *Tristr. Cat. Coll. B.* p. 9 (1889); *Cory, B. Bahamas*, p. 211 (1890); *Tsch. u. D. Torre, Ornis*, 1890, p. 271 (Elbe, Bohemia); *More, Irish B.* p. 27 (1890); *Gätke, Vogelw. Helgol.* p. 583 (1891); *Payton, Ibis*, 1891, p. 465 (Mogador); *Buckley & H.-Brown, F. Orkney Is.* p. 228 (1891); *H.-Brown & Buckley, F. Argyll. &c.* p. 188 (1892); *M.-Waldo, Ibis*, 1893, p. 206 (Fuerteventura, Canaries); *A. Briggs, Ann. Scot. N. H.* 1894, p. 87 (N. Ronaldshay, Orkneys, breeding); *Collett, Norges Fuglefauna, Nyt Mag. f. Naturv.* Bd. xxxv. p. 318 (1894); *Ussher, Pr.*

R. Irish Acad. (3) iii. p. 409 (1894); *Lilford, Col. Figs. Brit. B.* pt. xxix. (1894).

Sterna boysii, *Lath. Ind. Orn.* ii. p. 806 (1790); *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 41 (1816); *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 167 (1819); [mispr. boyiis] *Vieill. Enc. Méth.* p. 347 (1823); *id. Faun. Franç., Ois.* p. 326, pl. 160. fig. 1 (1828); *Fleming, Brit. An.* p. 142 (1828); *Selby, Brit. B.* ii. p. 464, pl. 88. fig. 1 (1833); *Nuttall, Man. Orn.* ii. p. 276 (1834); *Yarr. Brit. B.* ed. 2, iii. p. 487 (1845); *Chapman, Trav. S. Afr.* ii. p. 424 (1868: Walvisch Bay); *R. Gray, B. West. Scotl.* p. 465 (1871).

Sterna stubberica, *Otto*, in German ed. *Buffon*, xxx. p. 104, no. 27, *fide Naum.* (circa 1790); *Bechst. Naturg. Deutschl.* ii. p. 828 (1791: Stübber Isl.); *id. Orn. Taschenb.* p. 378 (1803).

? Sterna columbina, *Schrank, Fauna Boica*, i. p. 232 (1798).

Sterna canescens, *Meyer u. Wolf, Taschenb.* ii. p. 458 (1810); *Nilss. Orn. Suec.* p. 158 (1817).

Thalasseus cantiacus, *Boie, Isis*, 1822, p. 563; *Wagler, Isis*, 1832, p. 1225; *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838); *id. Cat. Ucc. Eur.* p. 76 (1842); *Gray, List Gen.* 1840, p. 79, *and* 1841, p. 100; *id. List B. Brit. Mus.*, Anseres, p. 176 (1844); *Boie, Isis*, 1844, p. 182; *Reichenb. Syst. Nat.* tab. iv. (1850), *and Av. Syst. Nat.* p. v (1852); *Brehm, Vogelf.* p. 346 (1855); *Licht. Nomencl. Av.* p. 98 (1854); *Bp. C. R.* xlii. p. 772 (1856); *Blas. J. f. O.* 1866, p. 81; *Loche, Expl. Sc. Algér., Ois.* ii. p. 199 (1867); *Fritsch, Vög. Eur.* p. 455, Taf. 55. fig. 2 (1870); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 51 (1876: Tehuantepec); *Giglioli, Ibis*, 1881, p. 217; *id. Avif. Ital.* p. 413 (1886); *id. 1st Resoc. Av. Ital.* p. 628 (1889).

Actochelidon cantiaca, *Kaup, Natürl. Syst.* p. 31 & p. 196 (1829: type of genus); *Gould, B. Gt. Brit.* v. pl. 69 (1873); *Radde, Orn. Cauc.* p. 485 (1884: breeds); *Olphe-Galliard, Contr. Faun. Orn. Eur. Occid.* livr. x. p. 11 (1886); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890).

Thalasseus canescens, *Brehm, Vög. Deutsch.* p. 776 (1831); *id. Naum.* 1855, p. 295.

Thalasseus candicans, *Brehm, Vög. Deutsch.* p. 777 (1831); *id. Naum.* 1855, p. 295.

Sterna acuflavida, *Cabot, Pr. Bost. Soc.* ii. p. 257 (1847); *Baird, Cass., & Lawr. Birds N. Amer.* p. 860 (1858); *Baird, Cat. N. Amer. B.* no. 685 (1859); *id. Mexic. Bound. Surv.* p. 27 (1859); *Bryant, Pr. Bost. Soc.* vii. p. 134 (1859: Bahamas); *Lawr. Ann. Lyc. N.Y.* ix. p. 210 (1869); *Gray, Hand-l. B.* iii. p. 119, no. 11048 (1871).

Thalasseus cantianus, *Brehm, Naum.* 1855, p. 295; *Salvin, Ibis*, 1859, p. 364 (El Baheira, E. Atlas).

Thalasseus pauli de wurtemberg, *Brehm, Vogelf.* 1855, p. 346 (Greece).

Thalasseus acuflavidus, *Bp. C. R.* xlii. p. 772 (1856); *Coues, Proc. Acad. Nat. Sci. Philad.* 1862, p. 540 (revision); *Salvin, Ibis*, 1864, p. 381; *Coues, tom. cit.* p. 389; *Salvin, op. cit.* 1866, p. 198 (Honduras); *Gundl. Orn. Cuba*, p. 309 (1876).

Sterna (Thalasseus) cantiaca, *Coues, B. N.-West*, p. 673 (1874).

Sterna cantiaca acuflavida, *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53, no. 683 (1881); *id. Cat. Aquatic B.* p. 33, no. 683 (1883).

Sterna sandvicensis acuflavida, *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 288 (1884); *A.O.U. Check-l. N. Amer. B.* p. 93 (1886); *Ridgw. Man. N. Amer. B.* p. 40 (1887); *Cory, B. West Indies*, p. 278 (1889); *id. Cat. West-Ind. B.* p. 82 (1892); *Field, Auk*, 1894, p. 120 (Jamaica).

Actochelidon sandvicensis, *Salvad. Ucc. Ital.* p. 275 (1887).
Actochelidon acuflavida, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890).

Adult in breeding-plumage. Forehead, upper lores, crown, and nape black, the feathers of the last acuminate and produced into a distinct crest; mantle pale pearl-grey, a shade paler than in *S. dougalli*; the primaries with white margins to the inner webs as in that species; tail white, the outer feathers not much elongated; underparts white, with an evanescent pink tinge, less pronounced than in *S. dougalli*: bill black, with about half an inch yellow at the tip; tarsi and toes black. Total length 16 inches, culmen 2·5, wing 12, tail 5·75, depth of fork 2·75–3, tarsus 1·1, middle toe with claw 1·2. The sexes are alike in plumage.

Adult in eclipse. Similar to the above, but white below, the forehead and crown nearly white, with streaks of black, which are confluent in front of the eye and on the nape. The new primaries are assumed about March, and have then well-defined white margins to the inner webs, as may be seen in examples from Karachi and from West Africa; but these white edges soon wear down, and it would be difficult to find any birds in Europe in May with such conspicuous borders. It must also be said that in American birds these white margins are never so broad as in Old World examples, and are barely continuous to the extremities of the outer primaries; nevertheless, in some Texan specimens, obtained early in May, the white edges, though narrow, are quite unbroken. The black head is reassumed in April and begins to fade in June.

Immature. Similar to the above, but with a greyish band along the upper wing-coverts, greyish centres to the inner and outer secondaries, and the terminal portions of the tail-feathers brownish grey, the outer feathers nearly white.

Young. Similar, but forehead ash-brown; crown dull white, thickly streaked with brownish black; upper parts mottled and variegated with black and white: bill horn-colour, yellowish at the base of the under mandible.

Nestling. Upper parts mottled buffish grey; underparts white: bill yellowish; legs and feet greyish brown, webs paler.

This is essentially a Sea-Tern, rarely nesting at any considerable distance from salt water. The eggs, two or three in number and often beautifully marked, are deposited on the bare ground or on drift. The hind toe in this species is certainly very small, though this character seems hardly enough for generic distinction; still *S. cantiaca* is an interesting pivot-species, connecting the *Sternæ* already noticed with the following group of medium-sized to large Crested Sea-Terns.

Hab. Atlantic and North Sea coasts from the Orkneys southward to the Mediterranean, the Black Sea and the Caspian (breeding); in winter along the West coast of Africa to the Cape of Good Hope and up to Natal, down the Red Sea and across Mesopotamia to the Persian Gulf, Mekran coast, and Karachi. East side of America from Southern New England to British Honduras, not breeding to the

northward of Florida; only found on the Pacific side on the coast of Guatemala and vicinity, where the continent is very narrow.

a. Ad. sk.	Great Britain.	J. G. Children, Esq. [P.].
b. Ad. sk.	Kent.	Montagu Coll.
c, *d*. ♂ ♀ ad. sk.	Walney I., Lancashire, June 1865 (*H. S.*).	H. Saunders Coll.
e. Ad. sk.	Buddon-ness, Firth of Tay, June.	H. Saunders Coll.
f, *g*. Juv.; *h*. Imm. sk.	Farne Is., Northumberland.	R. Chase, Esq. [P.].
i. Pull. sk.	Norderney, Frisian Is. (*Benzon*).	H. Saunders Coll.
k, *l*. ♂ ad.; *m*. ♂ imm.; *n*, *o*. Juv. sk.	Hâvre, France, July–August (*V. Pluche*).	Seebohm Coll.
p, *q*. ♂ vix ad.; *r*. Juv. sk.	Hâvre, France, July–August (*V. P.*).	H. Saunders Coll.
s. ♀ imm. sk.	Malaga, Spain, Dec. (*Rios*).	H. Saunders Coll.
t. ♂ imm. sk.	Tangier, Dec. (*Olcese*).	H. Saunders Coll.
u. Imm. sk.	Tangier (*Olcese*).	Tweeddale Coll.
v. ♂ ad. sk.	Tangier, March (*G. E. S.*).	Shelley Coll.
w. Imm. sk.	Cape Verd, Senegal.	L. Laglaize [C.].
x. Imm. sk.	Dakar.	Tweeddale Coll.
y. Ad.; *z*. Imm. sk.	Accra, April (*J. Smith*).	Shelley Coll.
a'. Ad. sk.	Cape Coast Castle, Feb. (*G. E. S.*).	Shelley Coll.
b'. ♂ imm. sk.	Walvisch Bay, Oct. (*C. J. Andersson*).	Tweeddale Coll.
c'. ♂ ad. st.; *d'*. Imm. sk.	Cape of Good Hope.	Sir A. Smith [P.].
e'. Imm. st.	Cape of Good Hope.	J. Gould Coll.
f', *g'*. Imm. et juv. sk.	Table Bay (*E. L. Layard*).	H. Saunders Coll.
h', *i'*. Juv. et imm. sk.	Table Bay (*E. L. L.*).	Salvin-Godman Coll.
k'. Vix ad. sk.	Cape Town, Feb. (*G. E. S.*).	Shelley Coll.
l'. ♂ imm. sk.	Durban Bay, Jan. 29 (*Gordge*).	Shelley Coll.
m'. ♂ imm. sk.	Egypt, March (*G. E. S.*).	Shelley Coll.
n'. ♀ imm. sk.	Gwadur, Mekran Coast, Dec.	W. T. Blanford Coll.
o'–*q'*. ♀ vix ad. sk.	Pusnee, Mekran Coast, Feb. (*A. O. H.*).	Hume Coll.
r'–*w'*. ♂ ♀ ad., vix ad., et imm. sk.	Sumniani Bay, Mekran Coast, Feb. (*A. O. H.*).	Hume Coll.
x'. ♀ juv. sk.	Cape Mouze, Sind, Feb. (*W. T. Blanford*).	Hume Coll.
y'–*k''*. ♂, *l''*. ♀ ad. et vix ad. sk.	Karachi, Sind, Feb. (*A. O. H.*).	Hume Coll.
m''. Imm. sk.	Karachi, Sind, Jan. (*W. T. B.*).	Hume Coll.
n''. Imm. sk.	Karachi, Sind, Jan. (*W. T. B.*).	H. Saunders Coll.
o''. ♀ vix ad.; *p''*. ♂ imm. sk.	Karachi, Sind, April (*E. A. Butler*).	Hume Coll.
q''. Ad. sk.	North America (*Krider*).	H. Saunders Coll.
r''. ♀ vix ad. sk.	Caper's I., South Carolina, April (*J. H. Batty*).	Salvin-Godman Coll.
s''. Ad. sk.	Florida (*E. W. Nelson*).	Salvin-Godman Coll.

t'', u''. ♂ ♀ juv.; v''–n^3. ♂ ♀ imm.; o^3–d^4. ♂ ♀ ad. sk.	Tarpon Spring, Florida, Sept. (*W. E. D. Scott*).	Salvin-Godman Coll.
e^4. ♂ ad.; f^4–k^4. ♂ ♀ vix ad.; l^4–o^4. Imm. sk.	Tarpon Spring, May 28 & June 8 (*W. E. D. S.*).	Salvin-Godman Coll.
p^4–v^4. ♂ ♀ ad. et vix ad. sk.	Corpus Christi, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
w^4, x^4. ♂ juv.; y^4, z^4. ♂ imm. sk.	Laguna Verde and La Antigua, Vera Cruz, Mexico, Sept. (*M. Trujillo*).	Salvin-Godman Coll.
a^5–c^5. Juv.; d^5–h^5. Imm.; i^5, k^5. Ad. sk.	Cozumel Id., Yucatan, Feb. (*G. F. Gaumer*).	Salvin-Godman Coll.
l^5. ♂ ad. sk.	Lighthouse Reef, British Honduras, May (*O. Salvin*).	Salvin-Godman Coll.
m^5, n^5. Imm. sk.	Chiapam, Pacific coast of Guatemala, Jan. (*O. S.*).	Salvin-Godman Coll.
o^5. Vix ad. sk.	Cartagena, Colombia, Feb. 1895.	Capt. Milner [P.].
p^5. Sternum.	England.	T. J. Ingall, Esq. [P.].
q^5. Sternum.	England.	John Ray, Esq. [P.].
r^5. Skull.	England.	Yarrell Coll.
s^5. Skull.	Heligoland.	Dr. Günther Coll.

13. Sterna maxima.

Grande Hirondelle de Mer de Cayenne, *Buffon, Ois.* viii. p. 346 (1783).

Hirondelle de Mer, de Cayenne, *Daubent. Pl. Enl.* ix. pl. 988 (1784).

Cayenne Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 352 (1785).

Sterna maxima, *Bodd. Tabl. Pl. Enl.* p. 58, no. 988 (1783); *Scl. et Salv. P. Z. S.* 1871, p. 567 (revision); *id. Nomencl. Av. Neotr.* p. 147 (1873); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 318 (1874: Mazatlan); *Saunders, P. Z. S.* 1876, p. 655 (revision Sterninæ); *Reichenow, J. f. O.* 1877, p. 10 (Loango); *Taczanowski, P. Z. S.* 1877, p. 749 (Tumbes, Peru); *Bocage, Orn. Angola*, p. 509 (1881); *A. & E. Newt. Handb. Jamaica*, p. 117 (1881); *Salvin, Cat. Strickl. Coll.* p. 624 (1882); *Coues, 2nd Check-list N. Am. B.* p. 123 (1882); *Saunders, P. Z. S.* 1882, p. 521 (Payta, Peru); *Boucard, op. cit.* 1883, p. 462 (Yucatan); *Cory, B. S. Domingo*, p. 178 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 284 (1884); *Ridgway, Pr. U.S. Nat. Mus.* vii. p. 173 (1885: St. Thomas); *Hartert, Ibis*, 1893, p. 309 (Aruba), p. 326 (Curaçao), p. 337 (Bonaire); *A. O. U. Check-l. Amer. B.* p. 93 (1886); *Ferrari-Perez, Pr. U.S. Nat. Mus.* ix. p. 179 (1886: Vera Cruz); *Wells, tom. cit.* p. 632 (Grenada, breeding); *Tacz. Orn. Pérou*, iii. p. 439 (1886); *Ridgw. Man. N. Amer. B.* p. 40 (1887); *Smyth, Pr. Elliot Soc.* ii. p. 189 (1888); *Salvin, Ibis*, 1889, p. 379 (Cozumel); *Scl. & Huds. Argent. Orn.* ii. p. 195 (1889); *Cory, B. West Ind.* p. 277 (1889); *Hartert, Kat. Vogelsamml. Senckenb.* p. 240 (1891); *Cory, Cat. West-Ind. B.* pp. 82, 134 (1892); *White, Auk*, 1893, p. 222 (L. Michigan); *Field, op. cit.* 1894, p. 120 (Jamaica).

Sterna cayana, *Lath. Ind. Orn.* p. 804 (1790); *Temm. Cat. Syst. Amsterd.* p 184 (1807); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 155 (1826); *Audub. B. Amer.* pl. 273 (c. 1826); *Bp. Ann. Lyc. N. Y.* ii. p. 353 (1828); *Nuttall, Man. Orn.* ii. p. 268 (1834);

Less. II. N. Mamm. et Ois. ix. p. 521 (1834); *Audub. Orn. Biogr.* iii. p. 505 (1835: partim); *id. Syn.* p. 316 (1839); *id. B. Amer.* 8vo, vii. p. 76, pl. 429 (1844: partim); *Giraud, B. Long Isl.* p. 355 (1844).

Sterna cayennensis, *Gm. S. N.* i. p. 604 (1788); *Illiger, Prodr.* p. 272 (1811); *D'Orbign. in Sagra's Hist. Nat. Cuba*, p. 214 (1839); *Gray, Gen. B.* iii. p. 658 (1846); *Reichenb. Natat.* tab. xix. fig. 266 (1848); *Gray, Hand-l. B.* iii. p. 120, no. 11051 (1871); *Pelzeln, Orn. Bras.* p. 324 (1871: Sapituba).

Sterna galericulata, *Licht. Verz. Doubl.* p. 81 (1823)*; *Reichenb. Natat.* tab. xxii. fig. 823 (1848); *Hartl. Orn. W.-Afr.* p. 254 (1857: Ashantee); *Schleg. Mus. P.-Bas*, Sternæ, p. 7 (1863); *Bocage, Jorn. Lisb.* 1867, p. 149 (Loanda); *Gray, Hand-l. B.* iii. p. 120, no. 11054 (1871); *Pelzeln, Orn. Bras.* p. 324 (1871).

Sterna erythrorhynchos, *Neuwied, Beitr.* iv. p. 857 (1833) [*cf. Salvin, Ibis*, 1874, p. 319]; *Tschudi & Cab. Faun. Peruan., Aves*, p. 305 (1846); *Gray, Gen. B.* iii. p. 659 (1846); *Burm. Th. Bras.* iii. p. 451 (1856).

Sterna cristata, *Stv. B. W. Afr.* ii. p. 247, pl. xxx. (1837†; *nec Stephens*, 1825); *Gray, List B. Brit. Mus.*, Anseres, p. 176 (1844); *id. Gen. B.* iii. p. 658 (1846); *Reichenb. Natat.* tab. xxii. fig. 822 (1848).

Thalasseus cayanus, *Bp. Comp. List*, p. 61 (1838); *Gosse, B. Jamaica*, p. 431 (1847).

Thalasseus cristatus, *Boie, Isis*, 1844, p. 182.

Sylochelidon erythrorhynchus (*Wied*), *Boie, Isis*, 1844, p. 186.

Sylochelidon galericulata (*Licht.*), *Boie, Isis*, 1844, p. 186; *Rochebrune, Faun. Sénég., Ois.* p. 337 (1884: Almadies).

Sylochelidon cayennensis (*Gm.*), *Boie, Isis*, 1844, p. 186; *Bp. C. R.* xlii. p. 772 (1856).

Phaëtusa galericulata, *Gray, Gen. B.* iii. p. 660 (1846); *Licht. Nomencl. Av.* p. 98 (1854: Brazil); *Bp. C. R.* xlii. p. 772 (1856).

Sterna regia, *Gambel, Pr. Philad. Acad.* iv. p. 228 (1848); *Baird, Cass., & Lawr. B. N. Am.* p. 859 (1858); *E. C. Taylor, Ibis*, 1864, p. 96 (Margarita I., W. Indies); *Dresser, Ibis*, 1866, p. 44 (Texas); *Léot. Ois. Trinid.* p. 543 (1866); *Lawr. Ann. Lyc. N. Y.* ix. p. 210 (1869: Yucatan); *Gray, Hand-l. B.* iii. p. 120, no. 11055 (1871); *Coues, Key N. Amer. B.* p. 319 (1872); *Henshaw, Ann. Lyc. N. Y.* xi. p. 13 (1874: Utah); *Ridgw. op. cit.* x. p. 391 (1874: Illinois); *id. Rep. Surv. 40th Par.* p. 639 (1877); *Cory, B. Bahamas*, p. 210 (1880); *id. ibid.* 2nd ed. p. 210 (1890); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Zeledon, Cat. Aves Costa Rica*, p. 36 (1882); *Dalgleish, Auk*, 1884, p. 97 (Tangier).

Thalasseus regius, *Gambel, Journ. Philad. Acad.* (2) i. p. 228 (1849); *E. & A. Newton, Ibis*, 1859, p. 371 (I. of St. Croix); *Coues, Proc. Philad. Acad.* 1862, p. 339; *id. Ibis*, 1864, p. 388 (Chiapam and Brit. Honduras); *Lawr. Ann. Lyc. N. Y.* viii. p. 103 (1864: Sombrero); *Salvin, Ibis*, 1866, p. 199 (Guatemala); *Allen, Bull. Harv. Coll.* ii. p. 366 (1871: Florida); *Gundl. Orn. Cuba*, p. 309 (1876); *Belding, Pr. U.S. Nat. Mus.* v. p. 549 (1883: Lower California).

Phætusa regia, *Bp. C. R.* xlii. p. 772 (1856).

Sterna bergii, *Hartl. Orn. W.-Afr.* p. 254 (1857: Gambia); *Shelley*

* Type in Berlin Museum examined.
† Type in Cambridge Museum examined.

& Buckley, Ibis, 1872, p. 293 (Accra & Cape Coast Castle); *Irby, Orn. Str. Gibr.* p. 209 (1875).
Sterna elegans, *Lcot. Ois. Trinid.* p. 542 (1866).
Thalasseus galericulatus, *Blasius, J. f. O.* 1866, p. 82.
Sterna (Thalasseus) regia, *Coues, B. N.-West*, p. 669 (1874); *id. Key N. Amer. B.* 2nd ed. p. 759 (1884).
Thalasseus maximus, *Lawr. Bull. U.S. Nat. Mus.* iv. p. 51 (1876: Tehuantepec).
Phaëthusa maxima, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890).

Adult in breeding-plumage. Forehead, upper lores, crown, and nape black, the feathers of the last acuminate and prolonged; neck white; mantle pearl-grey, with a conspicuous line of white along the carpal joint; shafts of quills white; outer webs of primaries grey, the outermost darkest; inner webs grey next the shafts and towards the tips, as well as for some distance up the inner webs, which have otherwise a white wedge on the upper parts: the extreme inner edges narrowly margined with white; secondaries edged with white, but not very conspicuously; rump pale pearl-grey; tail-feathers pearl-white, the streamers moderately long; underparts white: bill orange-red, tarsi and toes black. Total length 21 inches, culmen 2·7, wing 14·5, tail 8, depth of fork 3·75, tarsus 1·35, middle toe with claw 1·4. The male appears to have longer streamers and a stronger bill than the female, but otherwise there are no external differences.

Adult in autumn and winter. Similar, but the forehead and the crown mottled with white; in fact the forehead has become nearly white by June—as in *S. cantiaca*; bill paler in colour.

Immature. Similar, but the crown nearly white and the nape black and white; a good deal of grey or brownish grey, according to age, on the wing-coverts and inner secondaries, as well as towards the tips of the tail-feathers. In the latter some grey remains for several seasons, but I do not think that thoroughly mature birds reassume any grey in winter.

Young. Similar, but with brownish-black streaks on the lores and forehead; mantle darker and considerably chequered with ash-grey; rump with grey striations; primaries iron-grey, except the wedges; tail-feathers dark grey towards the extremities; bill, tarsi, and toes dull yellow.

Hab. America, from the New England States southward, breeding from Virginia to the West Indies; also down to Santa Catharina, South Brazil, and perhaps even to the Paraná; on the West side from Peru to California, and in Nevada. West African coast in winter, from the Straits of Gibraltar to Angola.

a. Imm. st.	Cape Roni, West Africa, Feb. 1822.	Sir E. Sabine, R.A. [P.].
b. Vix ad. sk.	Gambia (*S. cristata*, Sw.).	Gov. Rendall Coll.
c. Imm. sk.	Accra, West Africa (*G. E. Shelley*).	H. Saunders Coll.
d. Ad. sk.	Accra (*G. E. S.*).	Shelley Coll.
e. ♂ ad. sk.	Cape Coast Castle, Feb. (*G. E. S.*).	Shelley Coll.

f. ♀ imm. sk.	Cape Coast Castle, Feb. (*G. E. S.*).	H. Saunders Coll.
g, *h*. ♂ ad.; *i*. vix ad. sk.	Cobb's Id., Virginia, Aug. (*H. W. Henshaw*).	Salvin-Godman Coll.
k. ♀ ad. sk.	Cobb's Id., Virginia (*R. Ridgway*).	H. Saunders Coll.
l, *m*. Ad.; *n*. Imm. sk.	Caper's Id., South Carolina (*J. H. Batty*).	Salvin-Godman Coll.
o. ♂ ad. sk.	Beaufort Co., South Carolina, June (*C. H. Merriam*).	Salvin-Godman Coll.
p. Ad.; *q*. Imm. sk.	Bull's Point, South Carolina, April (*U.S. Nat. Mus.*).	Salvin-Godman Coll.
r–*z*, *a'*–*i'*. ♂ ad., imm. et juv.; *k'*–*y'*. ♀ ad., imm. et juv. sk.	Tarpon Springs, Florida, Jan., April, Sept. (*W. E. D. Scott*).	Salvin-Godman Coll.
z'–*h''*. ♂ ad. et vix ad.; *i''*–*l''*. ♀ vix ad. et imm. sk.	Corpus Christi Pass, Texas, May and Dec. (*F. B. Armstrong*).	Salvin-Godman Coll.
m''. ♀ imm. sk.	Rio Rancho nuevo, State of Vera Cruz, Jan. (*Ferrari-Perez*).	Salvin-Godman Coll
n''. ♀ ad. sk.	Rio Lagartos, Northern Yucatan, June (*G. F. Gaumer*).	Salvin-Godman Coll.
o''. Ad.; *p''*. Imm.; *q''*–*u''*. Juv. sk.	Cozumel Id., Yucatan, Feb. (*G. F. G.*).	Salvin-Godman Coll.
v''. Vix ad. sk.	Belize, British Honduras, May (*O. S.*).	Salvin-Godman Coll.
w''. Vix ad. sk.	Glover's Reef, British Honduras, May (*O. S.*).	Salvin-Godman Coll.
x''. Vix ad. sk.	Honduras.	W. Dyson, Esq. [P.].
y''. Ad. st.	Jamaica or Barbados.	P. H. Gosse, Esq. [P.].
z''. ♀ imm. sk.	Anegada, Virgin Is., W. Indies, Dec. (*C. B. Cory*).	Salvin-Godman Coll.
a^3, b^3. Imm. sk.	Grenada, W. Indies, Sept. 10 (*D. W. Smith*).	Salvin-Godman Coll.
c^3–e^3. Ad. sk.	Surinam (*Dr. Kirke*).	H. Saunders Coll.
f^3. ♂ ad. sk.	Brazil, April.	Capt. Milner [P.].
g^3–i^3. ♂ ♀ ad. et vix ad. sk.	Rio de Janeiro, July (*J. Young*).	H. Saunders Coll.
k^3, l^3. ♂ ad. sk.	Sta. Catharina, S. Brazil, Aug. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
m^3, n^3. Ad. et vix ad. sk.	Sta. Catharina (*H. Rogers*).	H. Saunders Coll.
o^3, p^3. Imm. sk.	Sta. Catharina (*H. Rogers*).	Salvin-Godman Coll.
q^3, r^3. ♂ ad. et vix ad. sk.	Sta. Barbara, California, Nov. (*H. W. Henshaw*).	Salvin-Godman Coll.
s^3, t^3. ♂ ♀ vix ad. sk.	Ventura, California, Nov. (*H. W. H.*).	Salvin-Godman Coll.
u^3. ♀ vix ad. sk.	Mazatlan, W. Mexico, Aug. (*A. Forrer*).	Salvin-Godman Coll.
v^3. ♂ imm. sk.	Manzanillo, Colima, Mexico, June (*W. Lloyd*).	Salvin-Godman Coll.
w^3–y^3. ♂ ad., imm., et juv. sk.	Chiapam, Gnatemala, Jan. (*O. Salvin*).	Salvin-Godman Coll.

z^3, a^1. ♂ ♀ imm. sk.	Payta, Peru, Jan. (*Adml. A. H. Markham*).	H. Saunders Coll.
b^1. Sternum.	Jamaica.	Gosse Coll.

14. Sterna elegans.

Sterna elegans, *Gambel, Pr. Philad. Acad.* iv. p. 129 (1848: Mazatlan); *Baird, Cass., & Lawr. Birds N. Amer.* p. 860 (1858), ed. 1860, *Atlas*, pl. 94; *Gray, Hand-l. B.* iii. p. 120, no. 11056 (1871); *Saunders, P. Z. S.* 1876, p. 653 (revision); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Coues, Check-l. N. Amer. B.* p. 123 (1882); *Saunders, P. Z. S.* 1882, p. 521 (Peru & Chili); *Coues, Key N. Amer. B.* 2nd ed. p. 760 (1884); *Baird, Brew., & Ridgw. Water-B. N. Amer.* ii. p. 287 (1884); *Taczan. Orn. Pérou*, iii. p. 442 (1886); *Ridgw. Man. N. Amer. B.* p. 40 (1887); *Berl. & Stolzm. P. Z. S.* 1892, p. 400 (Peru).

Thalasseus elegans, *Gambel, Journ. Philad. Acad.* ser. 2, i. p. 228 (1849); *Bp. C. R.* xlii. p. 772 (1856); *Coues, Pr. Philad. Acad.* 1862, p. 540; *id. Ibis*, 1864, p. 389 (San Salvador); *Salvin, Ibis*, 1866, p. 198 (Fonseca Bay).

? Sterna gavi, *Bp. C. R.* xlii. p. 772, no. 114 (1856); *Gray, Hand-l. B.* iii. p. 119, no. 11049 (1871: Chili).

Sterna comata, *Phil. & Landb. Wiegm. Arch.* 1863, pt. 1, p. 126 (Chili).

Sterna galericulata, *Scl. et Salv. P. Z. S.* 1871, p. 568–9, fig. 2 (*nec Licht.*); *iid. Nomencl. Av. Neotr.* p. 147 (1873); *Coues, Key N. Amer. B.* p. 319 (1872); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 317 (1874: Mazatlan).

Sterna (Thalasseus) galericulata, *Coues, B. N.-West*, p. 671 (1874); *id. Key N. Amer. B.* 2nd ed. p. 760 (1884).

Phaëthusa elegans, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890: partim, as regards Chili).

Adult in breeding-plumage. Smaller than *S. maxima*, with an absolutely longer and much slenderer bill; the black of the upper lores runs completely into the posterior portion of the nostril, the mantle is a shade darker than in the last species and the tail is rather more conspicuously white; otherwise the plumages are similar: bill bright orange-red, tarsi and toes black, soles yellow. Total length 16·5 inches, culmen 2·8, wing 12·25, tail 6·5, depth of fork 3, tarsus 1·2, middle toe with claw 1·3.

Adult in winter. Similar, but with a white forehead.

Immature and Young. As in the preceding species; in the bird of the year the bill is blackish and much shorter than in the adult.

Hab. Pacific coast of America from Southern California to Valdivia, Chile; once on the Atlantic side, at Corpus Christi, Texas. The specimen in the Salvin-Godman Coll. from the last locality is decidedly this species and not the next.

a. ♂ imm. sk.	Corpus Christi, Texas, July (*F. B. Armstrong*).	Salvin-Godman Coll.
b. Imm. sk.	La Union, San Salvador, Dec. (*O. S.*).	Salvin-Godman Coll.
c. ♂ ad. sk.	San Mateo, Tehuantepec, March (*F. Sumichrast*).	Salvin-Godman Coll.

d. ♂ ad. sk.	Chorrillos, near Callao, Peru (*W. Nation*).	Salvin-Godman Coll.
e. Imm. sk.	Callao Bay, Sept. (*Adml. A. H. Markham*).	H. Saunders Coll.
f. Vix ad. sk.	Iquique (*Rowland*).	H. Saunders Coll.
g. Vix ad. sk.	Coquimbo Bay, Chile, Nov. (*Adml. Markham*).	H. Saunders Coll.
h. Imm. sk.	Central Chile (*J. Brydges*).	Purchased.
i. Imm. st.	Central Chile (*J. Cuming*).	Purchased.
k. Vix ad.; *l.* Imm.; *m.* Juv. sk.	Viña del Mar, near Valparaiso.	Berkeley James Coll.
n. Imm. sk.	Valdivia, South Chile, Jan. (*E. C. Reed*).	Hume Coll.

15. Sterna eurygnatha.

? Sterna cayennensis, *Léot. Ois. Trinid.* p. 535 (1866).
Sterna cayennensis (partim), *Gray, Hand-l. B.* iii. p. 120, no. 11051 (1871 : Venezuela).
Sterna galericulata, *Pelzeln, Orn. Bras.* pp. 324, 461 (1871); *Scl. & Salv. P. Z. S.* 1871, pp. 568–9 (partim).
Sterna eurygnatha, *Saunders, P. Z. S.* 1876, p. 654 (Santa Catharina, Brazil).
Phaëthusa elegans, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890: partim, Brazil).
? Phaëthusa cayennensis, *iid. t. c.* p. 355 (Brazil).
? Sterna elegans, *Cory, Auk*, 1893, p. 220 (Tobago).

Adult in breeding-dress. Identical with the preceding in plumage, but the bill is lemon-yellow and the angle of the genys is immediately below or very little in front of the anterior portion of the nostril; the hind parts of the tarsi, the soles, and the claws are dull yellow. Total length 17·5 inches, culmen 2·7, wing 12·1, tail 6·5, depth of fork 2·8, tarsus 1·1, middle toe and claw 1·2.

Adult in winter, Immature, and Young. As in the preceding species, except that the bases of both mandibles are decidedly olivaceous, and in the young the toes and webs are ochre-yellow.

Nestling (Rio Janeiro, June 6, *J. Young*). Greyish white, thinly streaked with dark grey on the crown, behind the eye, and on the upper parts generally; underparts white; bill olivaceous; tarsi and toes brown, claws lighter.

Hab. East side of America, from Venezuela along the coast of Brazil (breeding) and as far as Port Desire, Patagonia, 47° 30′ S. lat. Southern examples show a deterioration in size.

a. Imm. sk.	Venezuela.	Purchased.
b, c. Imm. sk.	Bahia, Brazil, March (*Dr. Luschnath*).	Salvin-Godman Coll.
d. Imm. sk.	Bahia, Brazil (*Dr. Luschnath*).	H. Saunders Coll.
e, f. ♂ ad. et ♀ imm. sk.	Camamú, Brazil, Sept. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
g, h. ♂ ad. et juv. sk.	Rio de Janeiro, July, Aug. (*H. M. H.*).	H. Saunders Coll.

i. ♀ ad. ; *k.* Pull. ; *l–o.* ♂ ♀ ad. sk.	Rio de Janeiro, June 6 & 20 (*J. Young*).	H. Saunders Coll.
p. ♀ ad. sk.	Imbituba, Sept. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
q, r. ♂ ad. et ♂ imm. sk.	Santa Catharina, S. Brazil, Jan., Aug. (*H. M. H.*).	H. Saunders Coll.
s. Ad. sk.	Santa Catharina (*Rogers*).	H. Saunders Coll. (Type.)
t, u. Ad. sk.	Santa Catharina (*Rogers*).	Salvin-Godman Coll.
v. Imm. sk.	Port Desire, East Patagonia, Mar. (*H. M. Harrison, R.N.*).	H. Saunders Coll.

16. Sterna media.

Sterna media, *Horsf. Tr. Linn. Soc.* xiii. p. 198 (1820); *id. Zool. Res. Java*, p. 8 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 159 (1826); *Finsch & Hartl. Orn. Ost-Afr.* iv. p. 830 (1870); *Finsch, Tr. Z. S.* vii. p. 303 (1870: Red Sea); *Gray, Hand-l. B.* iii. p. 119, no. 11047 (1871); *Salvad. Faun. Ital., Uce.* p. 279 (1871); *Shelley, B. of Egypt*, p. 298 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1430 (1873); *Antin. & Salvad. Viagg. Bogos*, p. 154 (1873); *Salvad. Uce. Borneo*, p. 377 (1874: ? Borneo); *Irby, Orn. Str. Gibralt.* p. 209 (1875); *Legge, Ibis*, 1875, p. 408 (Ceylon); *Saunders, P. Z. S.* 1876, p. 655 (revision); *Tweedd. Ibis*, 1877, p. 323 (Lampong, Sumatra); *Butler, Str. F.* v. p. 301 (1877: Mekran Coast); *Dresser, B. Eur.* viii. p. 285, pl. 583 (1878); *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 201 (1878); *Fischer & Reichenow, J. f. O.* 1878, p. 247 (Zanzibar); *Klunzinger, Z. Ges. Erdk. Berlin*, xiii. Hft. ii. p. 90 (1878: Koseir); *Shelley, P. Z. S.* 1879, p. 679 (Comoro Is.); *Hume, Str. F.* viii. p. 71 (1879: Malacca); *Vidal, Str. F.* ix. p. 95 (1880: Malacca); *Legge, B. Ceylon*, p. 1030 (1880); *Salvad. Orn. Papuasia &c.* iii. p. 407 (1882); *Milne-Edwards & Grandidier, H. N. Madag., Ois.* p. 656 (1882); *Salvin, Cat. Strickl. Coll.* p. 624 (1882); *Oates, Handb. B. Brit. Burm.* ii. p. 426 (1883); *Tristr. Faun. & Flor. Palest.* p. 135 (1884); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 206 (1884: Java); *id. op. cit.* xlix. p. 419 (1889: Sumatra); *Tristr. Cat. Coll. B.* p. 9 (1889); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 299 (1890); *Hartl. Abh. Ver. Bremen*, xii. p. 344 (1891: E. Africa); *Barnes, J. Bomb. N. H. Soc.* vi. p. 285, pl. (eggs) (1891); *Walker, Ibis*, 1892, p. 258 (Adèle I., N.W. Australia); *North, Nests & Eggs Austr. B., Suppl.* ii. p. 31 (1892); *Barnes, Ibis*, 1893, p. 178 (Aden Gulf, breeding); *Reichenow, Vög. Deutsch. Ost-Afr.* p. 20 (1894).

Sterna affinis, *Cretzschm. in Rüpp. Atlas*, p. 23, tab. 14 (1826: Red Sea); *Werner, Atlas, Palmipèdes*, pl. 4 (1828); *Schinz, Europ. Faun.* i. p. 372 (1840); *Temm. Man. d'Orn.* 2nd ed. 4me pte. p. 454 (1840: Sicily); *Schl. Rev. Crit.* p. cxxix (1844); *Gray, List B. Brit. Mus.* Anseres, p. 177 (1844); *id. Gen. B.* iii. p. 658 (1846); *Reichenb. Natat.* tab. xix. fig. 267 (1848); *Degl. Orn. Eur.* ii. p. 342 (1849); *Heugl. Syst. Uebers.* p. 71 (1856: Red Sea); *id. Ibis*, 1859, p. 350 (Red Sea); *König-Warth. Ibis*, 1860, p. 127, pl. v. figs. 1, 2, 3 (eggs); *Heugl. in Peterm. Mitth.* 1861, p. 29; *id. op. cit.* 1869, p. 417; *Schleg. Mus. P.-Bas*, Sternæ, p. 6 (1863); *Brehm, Reise Habesch*, pp. 229, 421 (1863); *Bree, B. Eur.* iv. p. 87 (1866); *Schl. & Pollen, Faun. Madag., Ois.* p. 146 (1868); *Blanf. Geol. & Zool. Abyss.* p. 441 (1870: Zoulla); *Saunders, Ibis*, 1871, p. 398

(S. Spain); *Gray, Hand-l. B.* iii. p. 119, no. 11045 (1871); *Blanf. East. Persia*, ii. p. 294 (1876); *Hartl. Vög. Madag.* p. 383 (1877).

Sterna bengalensis, *Lesson, Traité*, p. 621 (1831); *Puch. Rev. Zool.* 1850, p. 542; *Jerd. B. Ind.* iii. p. 843 (1864); *Hume, Str. F.* i. p. 284 (1873); *id. op. cit.* ii. p. 318 (Nicobars); *id. Nests & Eggs Ind. B.* p. 655 (1875); *id. Str. F.* iv. p. 474 (1876: Laccadives).

"Sterna arabica, *Ehrenberg*," *Temm. Man. d'Orn.* ed. 2, 4me pte. p. 456 (1840).

Sterna, no. 402, *Jerdon, Madras Journ.* xii. p. 224 (1840); *cf. Blyth, Ibis*, 1865, p. 39.

Thalasseus torresii, *Gould, P. Z. S.* 1842, p. 140; *id. B. Austr.* vii. pl. 25 (1848); *Reichenb. Vög. Neuholl.* p. 346 (1850); *G. R. Gray, P. Z. S.* 1858, p. 188 (Aru Is.).

Thalasseus affinis, *Boie, Isis*, 1844, p. 182; *Brehm, Naum.* 1855, p. 295; *Bp. C. R.* xlii. p. 772 (1856); *Blas. J. f. O.* 1866, p. 82; *Loche, Expl. Sc. Algér., Ois.* ii. p. 200 (1867); *Fritsch, Vög. Eur.* p. 456, Taf. 56. figs. 1 & 4 (1870).

Thalasseus benegalensis, *Boie, Isis*, 1844, p. 182; *Blyth, J. A. S. Beng.* xv. p. 373 (1846: Nicobars); *id. Cat. B. Mus. As. Soc.* p. 291 (1849); *Bp. C. R.* xlii. p. 772 (1856); *Jerd. B. Ind.* iii. p. 843 (1864); *Gould, Handb. B. Austr.* ii. p. 397 (1865); *Ball, Str. F.* 1873, p. 90 (Nicobars); *Masters, Pr. Linn. Soc. N. S. W.* i. p. 62 (1877); *Ramsay, t. c.* p. 386 (G. of Carpentaria).

Sylochelidon affinis, *Rüpp. Syst. Uebers.* p. 139 (1845: Red Sea).

Thalasseus maxuriensis, *Licht. Nomencl. Av.* p. 98 (1854: Arabia & E. Indies)*; *Bp. C. R.* xlii. p. 772 (1856).

Pelecanopus torresi, *Bp. C. R.* xlii. p. 772 (1856).

Sterna torresii, *Gray, Cat. B. Trop. Is. Pacif. Oc.* p. 52 (1859); *Rosenb. Reistocht. Geelvinkb.* p. 118 (1875).

Sterna maxuriensis, *Gray, Hand-l. B.* iii. p. 119, no. 11046 (1871).

Thalasseus medius, *Holdsw. P. Z. S.* 1872, p. 482 (Ceylon); *Blyth & Wald. B. Burm.* p. 173 (1875); *Giglioli, Avif. Ital.* p. 413 (1886: Sicily).

Pelecanopus medius, *Walden, Tr. Z. S.* viii. p. 104 (1874: Celebes); *Meyer, Ibis*, 1879, p. 146 (Limbe Str., Celebes, breeds).

Actochelidon media, *Salvad. Ucc. Ital.* p. 275 (1887); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890: N.E. Africa).

Adult in breeding-plumage. Similar to the preceding species, but mantle decidedly darker grey, with the tail of the same tint (a little lighter on the streamers), the white inner margins to the primaries less pronounced; the bill waxy-yellow, shorter, and straighter; tarsi and toes black, soles pale yellow. Total length 17 inches, culmen 2·4, wing 12, tail 6·75, depth of fork 3, tarsus 1, middle toe with claw 1·1.

Adults in winter, Immature, and Young. These go through precisely the same changes and phases as those already described.

Breeds in large colonies on islands.

Hab. Mediterranean, from Straits of Gibraltar (sparingly) eastwards to Egypt; Red Sea; East Africa to Madagascar and islands of Indian Ocean, Persian Gulf, Arabian Sea, Lower Bay of Bengal, Malacca, Sumatra, Java, and Celebes; Australia, chiefly the north.

* Specimens in Berlin Museum examined.

a. Imm. sk.	Straits of Gibraltar, March (*G. Olcese*).	H. Saunders Coll.
b. ♀ ad. sk.	Port Said, May.	H. Saunders Coll.
c. Ad. st.	Red Sea (*Dr. Rüppell*).	Purchased.
d, *e*. ♂ imm.; *f*. ♀ imm. sk.	Zoulla, Red Sea, June (*W. Jesse*).	H. Saunders Coll.
g, *h*. Vix ad. sk.	Zoulla, June (*W. Jesse*).	Tweeddale Coll.
i. ♂ ad. sk.	Annesley Bay, Red Sea, June (*W. T. Blanford*).	Abyssinian Exped.
k. Vix ad. sk.	Suakin, Red Sea.	Capt. R. H. Penton [P.].
l. ♀ ad.; *m*. ♂ imm. sk.	South African seas.	Sir A. Smith [P.].
n. Ad. sk.	Durban (*Gordge*).	Shelley Coll.
o. Imm. sk.	N. Madagascar, May.	H. Saunders Coll.
p. ♂ imm. sk.	N.E. Madagascar.	Pollen Coll.
q, *r*. Imm sk.	Grand Comoro Is.(*Sir J. Kirk*).	Shelley Coll.
s. Ad. sk.	Persian Gulf (*Hamilton King*).	Tweeddale Coll.
t, *u*. ♂ ♀ ad. sk.	Mekran Coast, May (*Col. E. A. Butler*).	Hume Coll.
v. Ad.; *w*. Imm. sk.	"India."	T. C. Jerdon, Esq. [P.].
x. Ad. sk.	Soomeanee Bay, Feb. 1872 (*A. O. H.*).	Hume Coll.
y, *z*, *a'*. ♂ ad.; *b'*–*d'*. ♂ imm. *e'*. ♀ ad.; *f'*, *g'*. ♀ imm. sk.	Karachi, Feb. 1872 (*A. O. H.*).	Hume Coll.
h'. ♀ imm.; *i'*, *k'*. ♂ imm.; *l'*. ♂ ad. sk.	Karachi, March, April, & May (*E. A. Butler*).	Hume Coll.
m'. Imm.; *n'*. ♂ imm. sk.	Karachi, Jan. & Feb. (*W. T. Blanford & E. A. Butler*).	H. Saunders Coll.
o'. ♂ imm. sk.	Nursapatam.	Hume Coll.
p'–*r'*. ♂ vix ad. et imm.; *s'*–*w'*. ♀ vix ad. et imm. sk.	Laccadives, Feb. (*A. O. H.*).	Hume Coll.
x', *y'*. ♂ juv.; *z'*. ♀ juv. sk.	Quillon, Travancore, Nov.	Bourdillon Coll.
a''. Imm. sk.	Ceylon.	Tweeddale Coll.
b''. ♀ imm. sk.	Colombo, Ceylon, Dec. (*W. V. Legge*).	H. Saunders Coll.
c''. ♂ vix ad. sk.	Trincomalee, Ceylon (*W. V. Legge*).	H. Saunders Coll.
d''. Vix ad. sk.	Nicobar Islands.	East India Museum [P.].
e''. ♀ vix ad. sk.	Camorta, Nicobars, Feb. 7 (*W. Davison*).	Hume Coll.
f''. ♂ imm.; *g''*, *h''*. ♀ imm. sk.	Salangore, Malay Peninsula, Dec. & Jan. (*W. D.*).	Hume Coll.
i''. Imm. sk.	Java (*Horsfield*).	India Museum [P.]. (Type of *Sterna media*.)
k''. Imm. sk.	Lampong, Sumatra.	Tweeddale Coll.
l''. Imm.; *m''*. ♀ vix ad. sk.	Aru Islands.	A. R. Wallace Coll.
n''. Imm. sk.	[West Australia.]	Sir G. Grey [P.].

17. Sterna bergii.

Caspian Tern, var. *β*, *Lath. Gen. Syn.* iii. pt. 2, p. 351 (1785).
Sterna caspia, *γ*, *Gm. S. N.* i. p. 604 (1788).
Caspian Tern, *Phillip, Voy. Bot. B.* p. 77, with fig., & p. 160 (1789).
Sterna caspia, *β* & *γ*, *Lath. Ind. Orn.* ii. p. 804 (1790).
Sterna caspia, var. *b*, *Vieill. Encyc. Méth.* i. p. 96 (1823).
Sterna bergii *, *Licht. Verz. Doubl.* p. 80 (1823: Cape of Good Hope) †; *Gray, Gen. B.* iii. p. 658 (1846); *Reichenb. Natat.* tab. xix. fig. 265 (1848); *Schl. Mus. P.-Bas*, Sternæ, p. 11 (1863); *Pelz. Reis. Novara, Vög.* p. 154 (1865: Australia); *Finsch & Hartl. Faun. Centralpolyn.* p. 216 (1867); *Layard, B. S. Afr.* p. 370 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 455 (1867: Ireland); *Dole, Pr. Boston Soc. N. H.* xii. p. 306 (1869: Sandwich Is.); *Finsch & Hartl. Vög. Ost-Afr.* p. 828 (1870); *Gray, Hand-l. B.* iii. p. 120, no. 11057 (1871); *Gurney in Anderss. B. Dam.-Ld.* p. 360 (1872: Walvisch Bay); *Shelley, B. Egypt*, p. 298 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1436 (1873); *Antin. & Salvad. Viagg. Bogos*, p. 154 (1873); *Gräffe, Journ. Mus. Godeffr.* Bd. i. p. 50 (1873: Huaheine); *Hume, Str. F.* i. p. 283 (1873: Sind & Oman Coast); *id. Nests & Eggs Ind. B.* p. 655 (1875); *id. Str. F.* iv. p. 470 (1876: Laccadives); *Layard, P. Z. S.* 1875, p. 440 (Fiji Is.); *id. op. cit.* 1876, p. 497 (Navigator Is.); *Blanf. East. Pers.* ii. p. 294 (1876); *Saunders, P. Z. S.* 1876, p. 657 (revision Sterninæ); *Sharpe, Tr. Linn. Soc.* new ser. i. p. 350 (1877: Balabac, Philippines); *Hartl. Vög. Madag.* p. 384 (1877); *Scl. & Salvin, P. Z. S.* 1877, p. 557 (Admiralty Is.); *Tweedd. Ibis*, 1877, p. 323 (Lampong, Sumatra); *Finsch, P. Z. S.* 1877, pp. 776, 781 (Friendly Is.); *id. Ibis*, 1881, pp. 113, 115 (Ponapé, East Carolines); *Tweedd. P. Z. S.* 1877, p. 551 (Philippines); *Saunders, P. Z. S.* 1877, p. 796, and *Voy. H.M.S. 'Challenger,'* ii. *Birds*, p. 135 (1881: Fiji, Aru, Philippines, & Admiralty Is.); *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 201 (1878); *id. op. cit.* iv. p. 102 (1880: New Guinea); *id. op. cit.* vii. p. 41 (1883: Solomon Is.); *Butler, Str. F.* v. p. 298 (1877: Astolah, breeding in May); *Oustalet, Bull. Soc. Philomath.* p. 193 (1878: Seychelles); *Hume & Davison, Str. F.* vi. p. 493 (1878: Tenasserim); *Layard, Ibis*, 1878, p. 265 (New Caledonia); *id. t. c.* p. 279 (New Hebrides); *Tweedd. P. Z. S.* 1878, p. 346 (Leyte), *and* p. 712 (Bohol, Philippines); *Hume, Str. F.* viii. p. 116 (1879); *Finsch, P. Z. S.* 1879, p. 15 (New Britain); *Salvad. Ann. Mus. Civ. Genov.* xiv. p. 670 (1879: Kei Is.); *Sharpe, P. Z. S.* 1879, p. 353 (Labuan); *Vidal, Str. F.* ix. p. 95 (1880: S. Konkan); *Finsch, P. Z. S.* 1880, p. 577 (Caroline Is.); *Legge, Birds of Ceylon*, p. 1026 (1880); *Finsch, Ibis*, 1880, p. 332 (Marshall Is.); *id. Ibis*, 1881, p. 540 (New Britain group); *Scl. & Hartl. P. Z. S.* 1881, p. 174 (Socotra); *Parker, Str. F.* ix. p. 490 (1881: Adam's Bridge, Ceylon, breeding); *W. Ramsay, Tweedd. Mem.* p. 660 (1881: Philippines); *Tweedd. Voy. H.M.S. 'Challenger,' Birds*, pp. 6, 8, 25, 34 (1881); *Salvad.*

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* Extract from a letter by the late Dr. Peters:—"Mr. C. H. Bergius was a young man who collected in 1816 and 1817 for our [Berlin] Museum, at the Cape of Good Hope, and died there of consumption." The specific name is therefore as above, and not *bergi*, as it is often written.

† Type in Berlin Museum examined.

Orn. Papuasia, &c. iii. p. 432 (1882) ; *Tristram, Ibis,* 1882. p. 144 (Solomon Is.) ; *Kelham, Ibis,* 1882, p. 201 (Singapore) ; *Layard, Ibis,* 1882, p. 540 (New Caledonia) ; *Milne-Edwards & Grandidier, H. N. Madagasc., Ois.* p. 652, pls. 295 & 296 (1882 : osteology) ; *Salvin, Cat. Strickl. Coll.* p. 625 (1882) ; *Tristr. Faun. & Flor. Palest.* p. 136 (1884 : Sea of Galilee) : *Finsch, Vög. Südsee,* p. 22 New Britain : p. 51 Marshall Is. (1884) ; *Meyer, Sitz. Abh. Gesell. Isis,* 1884, p. 57 (Ceram) ; *Sharpe, ed. Layard's B. S. Afr.* p. 704 (1884) ; *Saunders, 4th ed. Yarr. Br. B.* iii. p. 539 (1884) ; *Sharpe, Rep. Voy.* ' *Alert,*' p. 27 (1884) ; *Nehrk. J. f. O.* 1885, p. 35 (Waigiou) ; *Pleske, Mél. Biol. St. Pétersb.* xii. livr. 2, p. 138 (1885 : Ternate) ; *Verbury, Ibis,* 1886, p. 23 (Aden) ; *Stejn. Pr. U.S. Nat. Mus.* x. pp. 392, 414 (1888 : Loo-Choo Is.) ; *E. Newton, Tr. Norf. & Norw. Soc.* iv. p. 553 (1888 : Mascarene Is.); *Sharpe, Ibis,* 1888, p. 204 (Palawan) ; *E. P. Ramsay, Tab. List Austr. B.* p. 23 (1888) ; *Salvad. & Gigl. Mem. Ac. Tor.* xxxix. p. 103 (1889 : Somali Coast) ; *Tristr. Cat. Coll. B.* p. 8 (1889) ; *North, Nests & Eggs Austral. B.* p. 354, pl. xix. fig. 2 (1889) ; *Everett, B. Borneo,* p. 210, no. 560 (1889) ; *Whitehead, Ibis,* 1890, p. 60 (Palawan) ; *Sharpe, t. c.* p. 149 (N. Borneo) ; *Seeb. B. Japan. Emp.* p. 299 (1890) ; *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 297 (1890) ; *Steere, List Mamm. & B. Exped. Philipp.* p. 27 (1890 : Mindanao) ; *Salvad. Agg. Orn. Papuasia &c.* p. 211 (1891) ; *id. Ann. Mus. Civ. Gen.* (2) ix. p. 591 (1890 : Rigo) ; *id. op. cit.* x. p. 833 (1891) : *Barnes, J. Bomb. N. H. Soc.* vi. pl. to p. 285 (eggs) (1891) ; *Sharpe, Ibis,* 1891, p. 115 (Fao, eggs) ; *Lister, P. Z. S.* 1891, pp. 298, 300 (Phœnix group) ; *Stejn. Pr. U.S. Nat. Mus.* xiv. p. 490 (1891 : S. Japan) ; *Hartert, Katal. Vogelsamml. Senckenb.* p. 240 (1891) ; *Wiglesw. Abh. zool. Mus. Dresden,* vi. p. 74 (1892 : Polynesia) ; *Barnes, Ibis,* 1893, p. 177 (Gulf of Aden, breeds in August).

New Holland Tern, *Lath. Gen. Hist.* x. p. 103 (1824 : juv.).

Sterna novæ hollandiæ, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 161 (1826) ; *Gray, Gen. B.* iii. p. 659 (1846) ; *Pucheran, Rev. Zool.* 1850, p. 545 * ; *Gray, Hand-l. B.* iii. p. 120, no. 11059 (1871).

Sterna cristata, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 146 (1826: *nec Swainson*) ; *Motley & Dillwyn, Nat. Hist. Labuan,* pt. i. p. 61 (1855) ; *Swinhoe, Ibis,* 1860, p. 68, & 1863, p. 30 (Kelung I., Formosa, breeding) ; *Gray, Hand-l. B.* iii. p. 120, no. 11058 (1871) ; *Salvad. Ucc. Borneo,* p. 376 (1874) ; *Sharpe, P. Z. S.* 1875, p. 111 (Labuan) ; *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 206 (1884 : Java) ; *id. op. cit.* xlix. p. 420 (1889 : Sumatra).

Sterna velox, *Cretzschm. in Rüpp. Atlas,* p. 21, tab. 13 (1826 : Red Sea) † ; *Schinz, Europ. Faun.* p. 377 (1840) ; *Gray, List B. Brit. Mus.* Anseres, p. 176 (1844) ; *id. Gen. B.* iii. p. 658 (1846) ; *Thomps. Ann. N. H.* xx. p. 170, and *Nat. H. Ireland,* iii. p. 226 (1847 : near Dublin ‡) ; *Reichenb. Natat.* tab. xix. fig. 268 (1848) ; *Heugl. Syst. Uebers.* p. 71 (1856 : Red Sea) ; *id. Ibis,* 1859, p. 350 (Red Sea & Somali Coast) ; *König-Warth. Ibis,* 1860, p. 127, pl. v. figs. 5–8 (eggs) ; *J. H. Gurney, Ibis,* 1860, p. 221 (Natal Bay) ; *Swinh. Ibis,* 1860, p. 429 ; *id. op. cit.* 1861, p. 345 ; *id. op. cit.* 1866,

* Type in Paris Museum examined.

† Type in Frankfort Museum examined.

‡ A fraud ; for exposure, see Saunders, 4th ed. Yarr. B. B. iii. p. 539 (1884).

p. 134 (China); *Gray, P. Z. S.* 1860, p. 366 (Moluccas); *Hartl. Faun. Madag.* p. 86 (1861); *Heugl. in Peterm. Mitth.* 1861, p. 29; *id. op. cit.* 1869, p. 417; *E. Newton, Ibis*, 1863, p. 460 (Tamatave, Madagascar); *Kirk, Ibis*, 1864, p. 337 (mouth of Zambesi, breeding in January); *Chapman, Trav. S. Afr.* ii. p. 424 (1868: Walvisch Bay); *Gurney, Ibis*, 1868, p. 262 (S. Africa); *Sperling, Ibis*, 1868, p. 295 (Mozambique); *Harting, Handb. Brit. B.* p. 168 (1872).

Sterna pelecanoides, *King, Surv. Int. Austr.* ii. p. 422 (1826); *Gray, Gen. B.* iii. p. 658 (1846); *Schl. Mus. P.-B.* Sternæ, p. 9 (1863); *id. Ned. Tijdschr. Dierk.* iii. p. 350 (1866: Aru Is.); *Rosenb. Reis Zuidoostereil.* p. 82 (1867: Kei I.); *id. Reistocht. Geelvinkb.* p. 9 (1875: Ternate); *id. t. c.* p. 118; *id. Maluy. Archip.* pp. 220, 279, 324, 373, 396, 406, 564 (1878–79: Mysol, Salwatti).

Sterna longirostris, *Less. Traité*, p. 621 (1831); *Boie, Isis*, 1844, p. 181; *Gray, Gen. B.* iii. p. 659 (1846); *Pucheran, Rev. et Mag. Zool.* 1850, p. 635 (Cape G. Hope); *Hartl. J. f. O.* 1855, p. 420.

Pelecanopus pelecanoïdes, *Wagl. Isis*, 1832, p. 277 & p. 1225 (type of genus); *Gray, List Gen. B.* p. 80 (1840) & p. 100 (1841: Australia); *Bp. C. R.* xlii. p. 772 (1856).

Thalasseus velox, *Wagl. Isis*, 1832, p. 1225; *Boie, Isis*, 1844, p. 182.

Sterna poliocerca, *Gould, P. Z. S.* 1837, p. 26; *id. Syn. B. Austr.* pl. ii. fig. 3 (1837: Tasmania); *Cassin, U.S. Expl. Exp.* p. 384 (1858: Fiji); *Gray, Ibis*, 1862, p. 249; *Schleg. Mus. P.-Bas*, Sternæ, p. 12 (1863); *Scl. P. Z. S.* 1864, p. 9 (Huaheine); *Finsch, Neu-Guin.* p. 184 (1865); *Rosenb. Malay. Archip.* p. 373 (1878–79: Aru Is.); *Legge, Pr. R. S. Tasmania*, p. 243 (1886).

Sylochelidon poliocerca, *Gray, List B. Brit. Mus.*, Anseres, p. 175 (1844: Australia).

Thalasseus poliocercus, *Boie, Isis*, 1844, p. 182; *Gould, B. Austr.* vii. pl. 24 (1848); *Reichenb. Vög. Neuholl.* p. 346 (1850); *Bennett, Gath. of a Naturalist*, p. 241 (1860); *Gould, Handb. B. Austr.* i. p. 396 (1865); *Marie, Act. Soc. Linn. Bord.* xxvii. p. 328 (1870).

Sylochelidon bergii, *Boie, Isis*, 1844, p. 186; *Licht. Nomencl. Av.* p. 98 (1854).

Sylochelidon velox, *Rüpp. Syst. Uebers.* p. 139 (1845: Red Sea): *A. E. Brehm, Reis. Habesch*, pp. 229, 419 (1863).

Thalasseus pelecanoides, *Gould, B. Austr.* vii. pl. 23 (1848); *Gray, Gen. Birds*, iii. p. 658 (1846); *Reichenb. Vög. Neuholl.* p. 346 (1850); *J. Macgill. Voy.* 'Rattlesnake,' ii. p. 358 (1853); *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 258 (1863); *Marie, Act. Soc. Linn. Bord.* xxvii. p. 328 (1870: N. Caledonia); *Swinhoe, P. Z. S.* 1871, p. 422.

Sterna rectirostris, *Peale, Zool. U.S. Expl. Exp.* p. 281, pl. lxxv. fig. 2 (1848: Fiji Is.); *Hartl. Wiegm. Archiv*, 1852, p. 126.

Thalasseus cristatus, *Blyth, Cat. B. Mus. As. Soc.* p. 291 (1849): *Swinhoe, P. Z. S.* 1863, p. 329; *Jerd. B. Ind.* iii. p. 842 (1864): *Gould, Handb. B. Austr.* ii. p. 394 (1865); *Hume, Ibis*, 1870, p. 473 (Tipperah); *Holdsw. P. Z. S.* 1872, p. 481 (Ceylon): *Blyth & Wald. B. Burm.* p. 163 (1875); *Masters, Pr. Linn. Soc. N. S. W.* i. p. 62 (1877: Torres Straits).

Pelecanopus velox, *Bp. C. R.* xlii. p. 772 (1856); *Verr. Voy. Vinson à Madag., Ann. B*, p. 4 (1865).

Pelecanopus bergii, *Bp. C. R.* xlii. p. 772 (1856); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890).

Pelecanopus poliocercus, *Bp. C. R.* xlii. p. 772 (1856).

Pelecanopus nigripennis, *Bp. C. R.* xlii. p. 772 (1856).

Sterna (Sylochelidon) poliocerca, *Gray, Cat. B. Trop. Is. Pacific*, p. 58 (1859).

Thalasseus bergii, *Blasius, J. f. O.* 1866, p. 81 (critical); *David et Oustal. Ois. Chine*, p. 523 (1877); *De la Touche, Ibis*, 1892, p. 502 (Foochow & Swatow).

Sterna galericulata, *Layard, B. S. Afr.* p. 371 (1867: *nec Licht.*); *Gurney, Ibis*, 1868, p. 262 (South Africa).

Pelecanopus cristatus, *Walden, Tr. Z. S.* viii. p. 105 (1874); *Tweedd. Mem.* p. 203 (1881: Celebes).

Sterna bergeri, *E. P. Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 302; *id. op. cit.* 1879, p. 102: *id. Nature*, ix. p. 15 (1879).

Sterna burgeri, *E. P. Ramsay, Pr. Linn. Soc. N. S. W.* 1882, p. 41 (Solomon Is.).

Adult male in breeding-plumage. A broad band of white between the base of the bill and the crown: otherwise resembles the preceding in having the mantle and tail of the same colour; but is larger, and darker grey on the upper parts: bill chrome-yellow, often tinged with dull green near the bases of both mandibles; tarsi and toes black with a reddish tinge, soles mottled with yellow. Total length 20 to 21 inches, culmen 2·5, wing (average) 14·25, tail 7·5, depth of fork 3·5, tarsus 1·3, middle toe with claw 1·4.

Female. Similar, with a slightly weaker bill on the average.

Adult in winter. Crown mottled with white, and even some of the nuchal feathers have white tips for a short time; mantle rather paler; bill greener, toes black: otherwise like the above.

Immature. Like the above, darker on the upper wing-coverts, secondaries, and primaries, as well as on the tail-feathers, which are dark ash-grey, especially on the outer webs and near the tips.

Young. Forehead and lores dull white, closely streaked with brownish black, crown and nape more boldly streaked with black, mantle mottled with black and buffish white; primaries chiefly dark brownish grey, the shafts brown; tail-feathers dark grey, tipped with white; underparts chiefly white, the neck and throat streaked with brown; bill olivaceous yellow.

No other young Tern of the grey-mantled group is quite so dark as this.

Nestling (Rottnest Island, Australia). Upper parts pale stone-colour, spotted and streaked with umber-brown, underparts dull white; bill and feet ochreous.

In this fine Sea-Tern the variation in size and in the tint of the upper parts in individuals is considerable, and this has given rise to the institution of several supposed species, which I cannot consider valid. As regards size, the smallest are those from the South of Australia, where the conditions of life are probably unfavourable to full development, though even in Tasmania some individuals have a wing-measurement of 14 in. In North Australia birds are nearly as large as those from the Red Sea and Mekran Coast, and there is every gradation over the area frequented. In colour, the birds with the darkest upper parts are those from the Red ("*S. velox*") and Arabian Seas and the Bay of Bengal, and these dark birds—slightly falling off in size—run down

to the northern part of Australia ("*S. pelecanoides*"). There and in the Moluccas they meet and blend with the smaller and greyer Southern race ("*S. poliocercus*"), from which they gradually become indistinguishable. In birds from South Africa and the Mascarene Islands the size of the Indian form is maintained, but the tint of the upper parts is of a purer grey without the brownish tinge, and this also holds good of most of the Polynesian examples, though the latter show a slight diminution in size. The contrast between extremes of these races may seem striking at the first glance, but even this, when examined, appears capable of explanation. Under the hot sun of the Arabian and Indian Seas the grey feathers of the mantle and tail soon acquire a brownish tinge at their edges, and brown is a very assertive colour; whereas in the Southern Seas and in the Pacific the sun's direct force is much feebler. Food also may have some influence upon the tint, as it undoubtedly has upon the size and shape of the bill, which is often considerably worn down in front of the angle of the genys.

Hab. Both sides of South Africa, the Red and Arabian Seas. Indian Ocean, Malayasia, China Seas up to Japan, Australia (but not New Zealand), Polynesia, and the Islands of the Pacific up to the Hawaii Archipelago. Breeds on islands: eggs often very rich in ground-colour and profusely scrolled.

a. Ad.; *b*. Imm.; *c*. ♀ juv. sk.	Walvisch Bay, Damara-land (*C. J. Andersson*).	H. Saunders Coll.
d, *e*. Ad.; *f*. Imm. sk.	Table Bay, Cape of Good Hope (*E. L. Layard*).	Salvin-Godman Coll.
g. ♀ ad. sk.	Cape Seas.	Sir A. Smith [P.].
h, *i*. ♂ vix ad. sk.	Socotra, March (*I. Balfour*).	British Association [P.].
k. ♀ vix ad. st.	Socotra, Feb. (*I. B.*).	Shelley Coll.
l. Ad. st.	Red Sea (*Rüppell*).	Purchased.
m. Vix ad. sk.	Aden.	Major Yerbury [P.].
n–*w*. ♂ ♀ ad. et vix ad. sk.	Gwadar, Mekran Coast, Feb. and May (*A. O. Hume and E. A. Butler*).	Hume Coll.
x, *y*. Vix ad. sk.	Karachi, Feb. (*A. O. H. & E. A. B.*), March (*E. A. B.*).	Hume Coll.
z. ♂ vix ad. sk.	Karachi, Feb. (*E. A. B.*).	H. Saunders Coll.
a'. ♂ ad. sk.	Viziadrug, South Konkan, April.	Hume Coll.
b'. ♀ vix ad. sk.	Malwan, South Konkan, Jan. (*G. Vidal*).	Hume Coll.
c'–*n'*. ♂ ♀ imm. sk.	Laccadives, Feb. (*A. O. H.*).	Hume Coll.
o'–*q'*. ♂ ad. sk.	Galle, Ceylon, May–June (*W. V. Legge*).	H. Saunders Coll.
r', *s'*. ♂ imm. sk.	Colombo, Ceylon, Jan. (*W. V. L.*).	H. Saunders Coll.
t', *u'*. ♀ imm. sk.	Madras (*Madras Mus.*).	Tweeddale Coll.
v'–*x'*. ♂ vix ad. et imm. sk.	Madras, March.	Hume Coll.
y'. Ad. sk.	Saugor Island, March (*A. O. H.*).	Hume Coll.
z'. Ad. sk.	Commillah, Tipperah.	Hume Coll.

a''. ♂ imm. sk.	Mergui, Tenasserim, Nov. (*W. Davison*).	Hume Coll.
b''–d''. ♂ ♀ imm. sk.	Pulo Nongsa, Nov. (*W. D.*).	Hume Coll.
e''. ♂ imm. sk.	Bopyin, Tenasserim, Dec. (*W. D.*).	Hume Coll.
f''. Imm. sk.	Prov. Wellesley, Strs. Malacca (*Dr. Cantor*).	India Mus. [P.].
g''. Imm. sk.	Pinang, Strs. Malacca (*Dr. Cantor*).	India Mus. [P.].
h''. Imm. sk.	Malacca (*Dr. Cantor*).	India Mus. [P.].
i''. ♂ imm. sk.	Singapore, Nov. 25 (*W. Davison*).	Hume Coll.
k''. Ad. sk.	Cochin China.	M. E. S. Pierre [P.].
l''. Ad. sk.	Amoy, China, July 1866 (*R. Swinhoe*).	H. Saunders Coll.
m''. Ad. sk.	Amoy, China (*R. S.*).	Gould Coll.
n''–p''. ♂ ♀ imm. sk.	South Leyte, Philippine Is., Oct. (*A. H. Everett*).	Tweeddale Coll.
q''–t''. ♂ ♀ imm. sk.	N. Bohol, Philippine Is., Nov. (*A. H. Everett*).	Tweeddale Coll.
u''. ♂ imm. sk.	Zamboanga, Mindanao, Philippine Is.	H.M.S. 'Challenger' Exp.
v''. Ad. sk.	Sulu I., N. Borneo (*Dr. A. B. Meyer*).	Tweeddale Coll.
w''. Ad. sk.	Balabac I.	Prof. Steere Coll.
x''. Imm. sk.	Lawas River.	H. Veitch Coll.
y'', *z''*, *a*³. Ad. et imm. sk.	Labuan, Oct.–Dec., Jan.	Everett Coll.
*b*³, *c*³. Ad. et imm. sk.	Sumatra (*Buxton*).	H. Saunders Coll.
*d*³. Imm. sk.	Lampong, Sumatra.	Tweeddale Coll.
*e*³. ♂ juv. sk.	Celebes.	Salvin-Godman Coll.
*f*³. ♀ ad. sk.	Obi I., Moluccas, July (*Bernstein*).	Salvin-Godman Coll.
*g*³. ♂ imm. sk.	Batchian I., Moluccas (*A. R. Wallace*).	Tweeddale Coll.
*h*³. Imm. sk.	Batchian I., Moluccas (*A. R. W.*).	Wallace Coll.
*i*³. Imm. sk.	Gilolo, Moluccas (*A. R. W.*).	Seebohm Coll.
*k*³. ♀ imm. sk.	Morotai I., Moluccas (*Bernstein*).	Seebohm Coll.
*l*³. Ad. (head).	Ceram, Moluccas (*A. R. W.*).	Wallace Coll.
*m*³. Imm. sk.	Amboyna, Moluccas (*A. R. W.*).	Wallace Coll.
*n*³. ♀ imm. sk.	Amboyna, Moluccas, Jan.	Salvin-Godman Coll.
*o*³. ♀ juv. sk.	Dobbo, Aru Is.	H.M.S. 'Challenger' Exp.
*p*³. Imm. sk.	New Guinea (*A. R. Wallace*).	Tweeddale Coll.
*q*³. Imm. sk.	New Guinea.	Wallace Coll.
*r*³. ♂ ad. sk.	Admiralty Is.	H.M.S. 'Challenger' Exp.
*s*³, *t*³. Ad. et imm. st.; *u*³. Ad. sk.	Australia.	Gould Coll.

v^3, w^3. Imm. sk.	Cape York, N. Australia (*Cockerell*),	Salvin-Godman Coll.
x^3. Ad. st.	Raine Islet, N.E. Australia.	J. B. Jukes, Esq. [P.].
y^3. Ad. sk.	Lizard I., N.E. Australia, May 12, 1844 (breeding).	Earl of Derby [P.].
z^3. Juv. st.	Clermont I., N.E. Australia, Sept.	Voy. H.M.S. 'Rattlesnake.'
a^4. Ad. sk.	Port Bowen, Queensland.	J. B. Jukes, Esq. [P.].
b^4, c^4. ♂ juv. sk.	Port Denison, Queensland, April (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
d^4. ♀ ad. sk.	Port Molle, Queensland, May (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
e^4. Ad. sk.	Moreton I., Queensland.	Voy. H.M.S. 'Rattlesnake.'
f^4. ♀ ad. sk.	Brisbane Water, Queensland, August.	Voy. H.M.S. 'Rattlesnake.'
g^4–k^4. Ad., vix ad., et imm. sk.	New South Wales.	Australian Mus. [P.]
l^4–n^4. Imm. et juv. sk.	Sydney Heads.	Australian Mus. [P.].
o^4. Juv. st.	Tasmania.	R. Gunn, Esq. [P.].
p^4. Ad. sk.	River Derwent, Tasmania.	Gould Coll.
q^4. ♂ vix ad. sk.	South Bruni I., extreme S. Tasmania, April (*Col. W. V. Legge*).	H. Saunders Coll.
r^4, s^4. Ad. sk.	South Australia.	Sir G. Grey [P.].
t^4. Ad. sk.	Melbourne.	Gould Coll.
u^4. ♂ ad. sk.	Port Lincoln, S. Australia.	Hume Coll.
v^4. Juv. sk.	100 miles off King George Sound, S.W. Australia (*W. E. P. Saer, R.N.*).	H. Saunders Coll.
w^4. Pull. st.	Rottnest I., Western Australia, Dec. 3, 1839.	Gould Coll.
x^4. Imm. sk.	Ansevata, New Caledonia, May (*E. L. Layard*).	Seebohm Coll.
y^4. Juv.: z^4, a^5. ♂ ♀ imm. sk.	Ovalau, Fiji, June and Nov. (*E. L. L.*).	Seebohm Coll.
b^5–d^5. ♂ ♀ imm. sk.	Ovalau, Fiji, Nov. and Jan. (*E. L. L.*).	Tweeddale Coll.
e^5–g^5. ♂ ♀ imm. sk.	Levuka, Fiji, May, July, Aug. (*E. L. L.*).	Tweeddale Coll.
h^5. ♂ imm. sk.	Levuka, Fiji, April (*E. L. L.*).	H. Saunders Coll.
i^5. ♂ imm. sk.	Levuka, Fiji.	H.M.S. 'Challenger' Exp.
k^5. ♀ imm. sk.	Mbau, Fiji Is. (*J. Brenchley*).	Voy. H.M.S. 'Curaçao.'
l^5. ♀ imm. sk.	Ngau, Fiji Is., Oct. (*F. M. Rayner*).	Voy. H.M.S. 'Herald.'
m^5. ♀ juv. sk.	Suva, Fiji Is., Oct. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
n^5. ♂ vix ad. sk.	Suva, Fiji Is., Feb. (*E. L. Layard*).	Tweeddale Coll.
o^5. ♀ ad. sk.	Bowditch I., Union Group, June 20, 1889 (*J. J. Lister*).	Seebohm Coll.

p^5. ♂ ad.; q^5. ♀ vix ad. sk.	Tongatabu, Friendly Is., Nov. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
r^5. Imm. sk.	Society Islands.	Hume Coll.
s^5, t^5. ♀ vix ad. et imm. sk.	Raiatea, Society Islands, Nov. (*J. Young*).	H. Saunders Coll.
u^5, v^5. ♂ ♀ ad. sk.	Huaheine, Society Islands, Nov. (*J. Y.*).	H. Saunders Coll.
w^5. Ad. sk.	Huaheine.	J. H. Gurney, Esq. [P.].
x^5. Skeleton.	Australia.	Warwick [Purchased].
y^5, z^5. Skulls.	Australia (*Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'

18. Sterna bernsteini.

Sterna bernsteini, *Schleg. Mus. P.-Bas*, Sternæ, p. 9 (1863: Halmahera)*; *Finsch, Neu-Guin.* p. 184 (1865); *Gray, Hand-l. B.* iii. p. 120, no. 11060 (1871); *Saunders, P. Z. S.* 1876, p. 657 (revision Sterninæ); *Hartl. Vög. Madag.* p. 386 (1877); *Sharpe, Phil. Tr.* clxviii. p. 463, *Rep. Trans. Venus* (1879: Rodriguez); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 407 (1882); *id. Orn. Papuasia &c.* iii. p. 435 (1882); *Saunders, P. Z. S.* 1886, p. 336 (Diego Garcia); *E. Newton, Tr. Norw. Soc.* iv. p. 553 (1888: Mascarene Is.).

Thalasseus bernsteini, *Blas. J. f. O.* 1866, pp. 81 & 86.

Sterna maxima, *Milne-Edwards & Grandidier, H. N. Madagasc., Ois.* p. 656 (1882).

Adult in winter plumage. Forehead and lores white; crown, nape, and long acuminate crest-feathers black mixed with white; mantle very pale grey, even lighter than in *S. maxima*: primaries similar in pattern to those of that species, but paler on the outer webs and with a larger extent of white on the inner webs; rump and tail-feathers palest grey; underparts white: bill olivaceous at the base, yellower towards the tip; tarsi and toes black, with a reddish tinge. Total length 17 inches, culmen 2·6, wing 12·9, tail 5·8, depth of fork 2·25, tarsus 1·2, middle toe with claw 1·3.

Immature. Similar, slightly darker on the upper parts, especially the centres of the inner secondaries and the webs of the primaries.

The adult in breeding-plumage is not yet known with certainty, but from the abrupt termination of the black on the forehead in all the specimens I have examined, there can be little doubt that Schlegel was right in assuming that this species belongs to the group with the white frontal band.

Hab. Island of Halmahera (Gilolo); Diego Garcia, Chagos group; the Seychelles; the Island of Rodriguez, and probably the rest of the Mascarene Islands.

a, *b*. Ad. sk.	Goilon, Island of Rodriguez (*Rev. H. H. Slater*).	Transit of Venus Expedition.
c. ♀ imm. sk.	Seychelles.	Shelley Coll.
d. ♂ sternum.	I. of Rodriguez.	Transit of Venus Exped.

* Type in Leyden Museum examined.

19. Sterna frontalis.

? Striated Tern, *Lath. Gen. Syn.* iii. p. 358, pl. 98 (1785: New Zealand; juv.).
? Sterna striata, *Gm. Syst. Nat.* i. p. 609 (1788); *Lath. Ind. Orn.* ii. p. 807 (1790); *Bonn. Enc. Méth.* pt. i. p. 95 (1790).
Sterna striata, *Gray, in Dieffenb. Trav. N. Zeal.* ii. App. p. 200 (1843).
? Sterna velox, *Gould* (*nec Cretschm.*), *P. Z. S.* 1842, p. 140 (Bass Straits; imm.).
Sterna frontalis, *Gray, Zool. Voy. Ereb. & Terror*, p. 19, pl. 20* (1844); *id. Gen. B.* iii. p. 659 (1846); *id. Hand-l. B.* iii. p. 118, no. 11034 (1871); *Finsch, J. f. O.* 1870, p. 364; *id. op. cit.* 1872, p. 253; *id. op. cit.* 1874, p. 205 (N. Zealand); *Hutton, Cat. N. Zeal. B.* p. 42 (1871); *id. Ibis*, 1872, p. 248 (Chatham Is.); *Buller, B. N. Zeal.* p. 281 (1873); *Sharpe, Voy. Ereb. & Terr., Birds*, App. p. 32 (1875); *Saunders, P. Z. S.* 1876, p. 659 (revision); *id. Journ. Linn. Soc.* xiv. p. 402 (1878: distribution); *Ramsay, Pr. Linn. Soc. N.S.W.* 1878, p. 201; *Reischek, Tr. N. Z. Inst.* 1886, p. 103 (Little Barrier I.); *Ramsay, Pr. Linn. Soc. N.S.W.* 1887, p. 1100; *id. Tab. List Austr. B.* p. 23 (1888); *Buller, B. New Zeal.* 2nd ed. ii. p. 68, pl. xxx. fig. 2 (1888); *North, Nests & Eggs Austral. B.* p. 403 (1889: Actæon I., Entrecasteaux Channel, S.E. Tasmania, breeding); *Tristr. Cat. Coll. B.* p. 9 (1889); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 354 (1890); *Hartert, Kat. Vogelsamml. Senckenb.* p. 239 (1891); *Wiglesw. Abh. zool. Mus. Dresd.* 1890–91, no. 6, p. 75 (1892); *H. O. Forbes, Ibis*, 1893, p. 530 (Chatham Is.).
? Gygis striata, *Boie, Isis*, 1844, p. 185.
Sterna albifrons, *Peale, U.S. Expl. Exp., Birds*, p. 279 (1848).
Sterna melanorhyncha, *Gould, B. Austr.* vii. pl. 26 (1848: Tasmania); *Reichenb. Vög. Neuholl.* p. 346 (1850); *Gould, Handb. B. Austr.* ii. p. 398 (1865: partim); *Gray, Hand-l. B.* iii. p. 118, no. 11033 (1871).
Sterna atripes, *Ellman, Zool.* 1861, p. 7473.
Sterna longipennis (partim), *Finsch & Hartl. Faun. Centralpolyn.* p. 220 (1867).
Sterna longipennis, *Finsch* (*nec Nordm.*), *J. f. O.* 1867, p. 339; *id.* (correction) *op. cit.* 1870, p. 365.†

Adult in breeding-plumage. Lores and lower forehead to the base of the bill white; upper forehead, crown, and nape black, the feathers filamentous and not acuminate; upper surface very pale grey, the shafts of the flight- and tail-feathers white; outer web of first primary black nearly to the tip, inner web pale grey next the shaft and white on the inner margin, the succeeding primaries grey on their outer webs, otherwise like the first, all of them edged with white to the tips of the inner webs as in *S. dougalli*; underparts pure white, sometimes suffused with a pink tinge, which is evanescent: bill black; tarsi and toes reddish brown. Total length 16 to 17 inches, according to the development of the tail-streamers; culmen 2·2, wing 11·25, tail 7, depth of fork 4, tarsus 0·85, middle

† "PHAËTUSA ASTROLABÆ," *Bp. MS.*

There is a young *S. frontalis* named as above in the Paris Museum, said to come from Tongatabu (Quoy & Gaimard's Voy.). Another bird bearing the same name and from the same locality is *S. bergii*.

toe inclusive of claw 1·1. The streamers may attain somewhat greater length in the male, but otherwise the sexes are alike in plumage.

Adult in winter. Similar, but mottled with white on the forehead and crown.

Immature. Head mottled with white and brownish black; a broad band of dark brown on the upper wing-coverts, the under secondaries with patches of the same colour; primaries ash-grey on both sides of the shafts; tail-feathers dark grey on the outer webs and the terminal portions of the inner webs.

Young. Entire head darker, feathers of the upper parts barred and tipped with brownish black on a buffish-white to grey ground: bill dark horn-colour; otherwise similar to the adult.

Fledgling (Otago, Feb.; coll. Hon. W. Rothschild). Forehead and crown chiefly dull white, with dark streaks which become confluent on the nape; markings on the upper parts paler and narrower.

Nestling. "Covered with buffy-white down, tinged with fulvous on the head and neck, and mottled with grey on the back" (*Buller*).

Hab. New Zealand; also (*fide* E. P. Ramsay) in Bass Straits and "all along the coast-line of Australia."

a, *b*. Ad. st.	New Zealand (*Pamplin*).	Purchased.
c. Ad. sk.	New Zealand.	H. Saunders Coll.
d, *e*. ♀ ad. sk.	New Zealand, Jan.	Tweeddale Coll.
f, *g*. Ad. sk.	New Zealand.	Sir E. Home [P.].
h. Ad. st.; *i*. Juv. sk.	New Zealand.	Capt. Stokes, R.N. [P.].
k. ♂ ad. sk.	Dusky Bay, New Zealand.	Capt. Stokes, R.N. [P.].
l. ♀ ad. st.	Port Cooper, New Zealand.	F. Strange [C.].
m, *n*. Ad.; *o*. Imm.; *p*. Juv. sk.	Otago, New Zealand.	H. Saunders Coll.
q. ♂ ad. sk.	Otago.	Hume Coll.
r. ♂ ad. sk.	Dunedin, New Zealand, April.	Hume Coll.
s. ♀ ad. sk.	Dunedin, New Zealand, Oct.	Hume Coll.
t. Ad.; *u*. Juv. sk.	Wellington, New Zealand.	H. Saunders Coll.
v. Sk.	Auckland Islands.	Gould Coll.
w. Juv. sk.	New South Wales.	Australian Mus. [P.].

20. Sterna aleutica.

Sterna aleutica, *Baird, Trans. Chicago Acad.* 1869, p. 321, pl. 31. fig. 1 (Alaska); *Dall & Bann. tom. cit.* p. 307 (Kodiak, Alaska); *Gray, Hand-l. B.* iii. p. 118, no. 11037 (1871); *Saunders, P. Z. S.* 1876, p. 664 (revision Sterninæ); *id. Journ. Linn. Soc.* xiv. pp. 403 & 405 (1878: distribution); *Coues, Key*, p. 322 (1872); *id. B. N.-West*, p. 696 (1874); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Coues, Check-l. N. Amer. B.* p. 124 (1882); *Nelson, Cruise 'Corwin,'* p. 109 (1883); *Coues, Key N. Amer. B.* 2nd ed. p. 768 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.*

ii. p. 307 (1884); *Turner, Rep. Alaska*, p. 127 (1886); *A. O. U. Check-l. N. Amer. B.* p. 94 (1886); *Ridgw. Man. N. Amer. B.* p. 45 (1887); *Nelson, Rep. Alaska*, p. 60 (1887); *Seebohm, B. Japan. Emp.* p. 299 (1890: Inuboye); *Allen, Auk*, 1893, p. 123.

Sterna camtschatica, "*Pallas*," *Finsch, Abh. nat. Ver. Brem.* iii. p. 85 (1882: *nec Pallas*).

Adult in breeding-plumage. Centre of forehead and backwards to the eye white; below, a black loral streak from the maxilla to the eye; crown and nape black; mantle slate-grey, the secondaries edged with white; primaries darker grey, the outer web of the first blackish, shafts white, a dark line next the shaft on each inside web and running up the inner margin, white wedges to the four outer primaries; rump and tail pure white, streamers long and pointed; under tail- and under wing-coverts white; abdomen and breast pale slate-grey; chin and lower cheeks white: bill and feet black. Total length 13·5 inches, culmen 1·6, wing 10·75, tail 6·5 to 7, depth of fork 3·5–4, tarsus 0·75, middle toe with claw 1. The sexes appear to be alike in plumage.

Adult in winter. Similar to the above, with rather more white on the forehead.

Immature, unknown to me. In a specimen obtained on August 23rd, 1879, a few sandy-white margins to the tips of some of the feathers of the mantle can be detected, and the general plumage is dull; otherwise the bird is like an adult, with well-developed, though abraded, streamers; the lower mandible slightly reddish at the base.

Young (Sept. 1). Forehead and crown brown, with blackish streaks, which become confluent on the nape; feathers of the mantle chiefly black, deeply edged with rufous buff, flight-feathers dark grey; rump and tail grey, the outer webs of the exterior pair of rectrices white, all the feathers tipped with buff; underparts dull white, with some clove-brown on the upper breast and sides of the neck: bill and feet ochre-yellow.

Nestling (No. 97160, St. Michael's, Alaska, July 29th, 1880; E. W. Nelson). "Above rather light sooty brown, confusedly marbled or mottled with dusky, the head with the light brown predominating, and the dusky markings more distinct. Forehead, chin, entire throat, and sides of the neck uniform sooty slate; jugulum and breast pure white; sides, flanks, abdomen, and anal region sooty grey. Bill pale yellowish brown (flesh-colour in life), with black tip; legs and feet pale yellowish brown (flesh-colour in life?)" (Water-B. N. Amer. ii. p. 307). Mr. Nelson goes on to describe No. 97162, which is now in the B.M. coll., and shows the points in which it differs from the above. The specimen in question has been labelled "*S. macrura*" and subsequently "*S. aleutica*?"; and it is exactly like downy nestlings of the Arctic Tern from Europe and from St. Michael's, Alaska. There is also in the British Museum a nestling obtained by Mr. C. Drexler on St. Paul's I., July 25th, which agrees better with Mr. Nelson's description, while it is unlike the nestling of an Arctic Tern, or indeed any other

Northern species. If not *S. aleutica*, I can only suggest that it may be the young of *S. longipennis*, not yet known in this stage.

Hab. Coast and islands of Alaska; also Asiatic side of Bering Sea, and South-east Japan.

a. ♀ ad. sk.	St. Michael's, Alaska, Aug. (*L. M. Turner*).	H. Saunders Coll.
b–d. ♂ ♀ ad. sk.	St. Michael's, Alaska, June-July (*L. M. T.*).	Salvin-Godman Coll.
e–n. ♂, *o–q.* ♀ ad. sk.	St. Michael's, Alaska, June-July (*E. W. Nelson*).	Salvin-Godman Coll.
r. Pull. sk. [?]; *s–u.* ♀ ad.; *v–z.* Juv. sk.	St. Michael's, Alaska, July 29–Sept. 1 (*E. W. N.*).	Salvin-Godman Coll.
a'. Ad. sk.	Inaboye, off Yedo, Japan.	Seebohm Coll.

21. Sterna lunata.

Sterna lunata, *Peale, U.S. Expl. Exp., Birds*, p. 277 (1848: Vincennes I., Paumotu Group); *Hartl. Wiegm. Arch.* 1852, p. 125; *id. J. f. O.* 1854, p. 170; *Cassin, U.S. Expl. Exp., Birds*, p. 382 (1858); *Gray, Cat. B. Trop. Is.* p. 59 (1859); *Schlegel, Mus. P.-B.*, Sternæ, p. 27 (1863: Halmahera); *Finsch & Hartl. Faun. Centralpolyn.* p. 231, pl. xiii. fig. 3 (1867: McKean's Is.); *Hartl. P. Z. S.* 1867, p. 831 (Pelew Is.); *Hartl. & Finsch, op. cit.* 1868, pp. 4, 9, & 118; *Scl. op. cit.* 1869, p. 124 (Solomon Is.); *Hartl. & Finsch, op. cit.* 1872, pp. 90 & 113 (Pelew and Mackenzie Is.); *Finsch, Journ. Mus. Godeffr.* Hft. viii. p. 41 (1875: Pelew Is.); *Roseub. Reistocht. Geelvinkb.* p. 9 (1875); *Layard, Ibis*, 1876, p. 393 (Fiji Is.); *Saunders, P. Z. S.* 1876, p. 665 (revision); *id. Journ. Linn. Soc.* xiv. p. 404 (1878: distribution); *Tristr. Ibis*, 1882, p. 144 (Solomon Is.); *Stejn. Pr. U.S. Nat. Mus.* xii. p. 379 (1889: Kaui I.); *Lister, P. Z. S.* 1891, pp. 296 & 300 (Phœnix Group).

Haliplana lunata, *Coues, Ibis*, 1864, p. 392; *Blas. J. f. O.* 1866, p. 80; *Coues, B. N.-W.* pp. 698 & 703 (1874: critical); *Rothsch. Avif. Laysan &c.* i. p. 37, pl. (1893).

Hydrochelidon lunata, *Gray, Hand-l. B.* iii. p. 122, no. 11081 (1871).

Onychoprion lunatus, *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 409 (1882); *id. Orn. Papuasia &c.* iii. p. 451 (1882); *Vordern. Nat. Tijdschr. Nederl. Ind.* li. p. 247 (1891: S. Sumatra) [?]; *Wiglesw. Abh. k. Mus. Dresd.* 1890–91, no. vi. p. 76 (1892).

Adult in breeding-plumage. Centre of forehead and the superciliary line thence to behind the eye white; loral stripe, crown, and nape black; hind neck grey; mantle and tail-coverts dark slate-grey, the secondaries not tipped with white but only greyish white on their inner webs; primaries chiefly smoke-grey, with white "wedges" to the centres of the inner webs, shafts brown; tail-feathers chiefly smoke-grey, except at their bases which are whitish, the outer pair quite white on the exterior webs and only grey for about 2 inches from the tips of the inner webs; underparts white: bill black; tarsi and toes reddish black, the inner webs considerably excised, the toes slender, the claws rather long and curved. Total length 15 inches, culmen 1·9, wing 10·5, tail 6·75, depth of fork 2·7, tarsus 0·8, middle toe with claw 1·25.

Adult in winter plumage. Similar to the above, with more white on the forehead.

Immature. Head mottled with black and white; mantle and tail with rather a brownish tinge to the grey; the usual dark line along the upper wing-coverts; otherwise like the above.

Young. Forehead, head, and sides of neck mottled and streaked with black on a stone-white ground; feathers of the mantle brownish grey, broadly tipped with dull white; underparts white; bill, tarsi, and toes horn-brown.

Hab. Paumotu Is. (Low Archipelago), Society Is., Fiji Group, Phœnix Is., Hawaiian Group, Laysan and Krusenstern Is., Caroline and Pelew Is., Moluccas, Solomon Is., and probably the intermediate islands of the Pacific.

a. Juv. sk.	Solomon Islands.	P. L. Sclater, Esq. [P.].
b. Imm. sk.	Tahiti (*A. Garrett*).	H. Saunders Coll.
c. ♂ ad. sk.	Phœnix Islands, June.	J. J. Lister, Esq. [P.].
d. Ad. sk.	Hawaii (*Knudsen*).	Prof. R. Collett [P.].
e, f. Ad. sk.	Krusenstern Is, spring (*O. Snow*).	Seebohm Coll.

22. Sterna anæstheta.

L'Hirondelle de mer de l'Isle de Panay, *Sonn. Voy. Nouv. Guin.* p. 125, pl. 84 (1776).

L'Hirondelle de mer des Philippines, *Buffon, Hist. Nat. Ois.* viii. p. 344 (1783).

Panayan Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 363 (1785: *ex Sonn.*).

Sterna anæstheta*, *Scop. Del. Faun. et Flor. Ins.* i. p. 92, no. 72 (1786: *ex Sonn.*); *Coues, Key N. Amer. B.* p. 323 (1872); *Legge, Str. F.* 1875, p. 377; *Hume, op. cit.* 1876, p. 474 (Laccadives); *Butler, op. cit.* 1877, p. 301 (Mekran Coast); *Saunders, P. Z. S.* 1876, p. 664 (revision); *id. op. cit.* 1877, p. 43; *id. Zool.* 1877, p. 213 (Mouth of Thames?); *id. Journ. Linn. Soc.* xiv. p. 404 (1878: distribution); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *id. op. cit.* 1879, p. 302 (New Guinea); *id. op. cit.* 1880, p. 102 (New Guinea); *Oustal. Bull. Soc. Philomath.* 1878, p. 196 (Seychelles); *Sharpe, P. Z. S.* 1878, p. 272 (Ellice Is.); *Hume, Str. F.* 1879, pp. 71 & 116; *id. op. cit.* ix. p. 96 (1880: Malabar Coast); *Legge, B. Ceylon*, p. 1040 (1880); *Cory, B. Bahamas*, p. 215, pl. (1880); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Milne-Edwards & Grand. H. N. Madag., Ois.* p. 658 (1882); *Salvin, Cat. Strickl. Coll.* p. 626 (1882); *Oates, B. Burm.* ii. p. 431 (1883); *Sharpe, Rep. Voy. 'Alert,'* p. 28 (1884: Torres Str.); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 316 (1884); *Wells, Pr. U.S. Nat. Mus.* ix. p. 632 (1886: I. of Grenada); *Ridgw. Man. N. Amer. B.* p. 46 (1887); *E. Newt. Tr. Norf. & Norw.* iv. p. 553 (1888: Mascarene Is.); *E. P. Ramsay, Tab. List*, p. 23 (1888); *Tristr. Cat. Coll. B.* p. 8 (1889); *Cory, B. West Ind.* p. 278 (1889); *Everett, B. Borneo*, p. 211 (1889); *North, Nests & Eggs Austr. B.* p. 356 (1889); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii.

* Originally "*Sterna anæthetus*," many of the older writers maintaining that *Sterna* was masculine; subsequently *anosthœtus, anæstheta*, &c. I have put them all together as synonyms identical in meaning.

p. 300 (1890); *Seebohm, B. Japan. Emp.* p. 301 (1890); *J. B. Young, Ibis*, 1891, p. 147 (Red Sea; breeds); *Hartert, Kat. Vogelsamm. Senckenb.* p. 238 (1891); *Walker, Ibis*, 1892, p. 256 (N.W. Australia: breeds); *Cory, Cat. W. Ind. B.* p. 83 (1892); *Barnes, Ibis*, 1893, p. 178 (Aden); *Hartert, t. c.* p. 310 (Aruba I., breeds); *Reichenow, Vög. Deutsch.-O.-Afr.* p. 21 (1894: Formosa Bay, near Witu).

Sterna panayensis, *Gm. S. N.* i. p. 607 (1788); *Raffles, Tr. Linn. Soc.* xiii. p. 329 (1821); *Schleg. Mus. P.-B.*, Sternæ, p. 26 (1863); *Rosenb. Nat. Tijdschr. Nederl. Ind.* xxv. p. 256 (1863); *id. J. f. O.* 1864, p. 138; *Schl. & Pollen, Faun. Madag., Ois.* p. 148 (1868); *Blanf. Geol. & Zool. Abyss.* p. 441 (1870: Red Sea); *Cab. & Reichenow, J. f. O.* 1876, p. 328.

Sterna panaya, *Lath. Ind. Orn.* p. 808 (1790); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 157 (1826); *Gray, P. Z. S.* 1858, p. 198; *id. Cat. B. New Guin.* p. 63 (1859); *Heugl. in Peterm. Mitth.* 1861, p. 31 (Red Sea); *Hartl. & Finsch, Faun. Centralpolyn.* p. 228, t. iv. figs. 1–3, eggs (1867); *Dole, Pr. Bost. Soc. N. H.* p. 306 (1869: Sandwich Is.); *Finsch, Tr. Z. S.* vii. p. 305 (1870: Massowa); *Finsch & Hartl. Vög. Ost-Afr.* p. 883 (1870); *Layard, P. Z. S.* 1876, p. 497 (Levuka); *id. op. cit.* 1879, p. 365; *Fischer & Reichenow, J. f. O.* 1878, p. 247 (Zanzibar).

Sterna antarctica, *Lesson, Traité*, p. 621, *ex Cuvier, MS.* (1831: Ile de France and Calcutta) (*nec Wagler*, 1832); *Pucheran, Rev. Zool.* 1850, p. 541 (critical); *Hartl. J. f. O.* 1855, p. 419 (="S. panayensis").

Sterna melanoptera, *Swainson, B. W. Afr.* ii. p. 249 (1837) *; *Gray, Gen. B.* iii. p. 659 (1846); *Allen & Thomps. Exp. Niger*, i. p. 167 (1848); *Hartl. Orn. W.-Afr.* p. 255 (1857); *Dohrn, P. Z. S.* 1866, p. 331 (Ilha do Principe).

Haliplana panayensis, *Boie, Isis*, 1844, p. 190; *Licht. Nomencl. Av.* p. 97 (1854: Bengal); *Bp. C. R.* xlii. p. 772 (1856); *Hartl. Faun. Madag.* p. 86 (1861: Ile de France); *Salvin, Ibis*, 1866, p. 199; *Blasius, J. f. O.* 1866, p. 80; *E. Newton, Ibis*, 1867, p. 359 (Seychelles); *Hartl. Vög. Madag.* p. 388 (1877).

Hydrocecropis melanoptera (*Swains.*), *Boie, Isis*, 1844, p. 179.

Hydrocecropis panayensis, *Boie, Isis*, 1844, p. 179.

? Haliplana keri, *Boie, Isis*, 1844, p. 190.

Sterna fuligula, *Licht. in Forst. Descr. An.* p. 276, note (1844).

Melanosterna anasthetus, *Blyth, J. A. S. B.* xv. p. 373 (1846: type of genus).

Sterna fuliginosa (partim), *Gray, Gen. B.* iii. p. 659 (1846).

Onychoprion panaya, *Gould, B. Austr.* vii. pl. 33 (1848); *Reichenb. Vög. Neuholl.* p. 348 (1850); *Macgill. Narr. Voy.* '*Rattlesnake*,' ii. p. 359 (1852); *Krefft, Ibis*, 1862, p. 192.

Onychoprion anæsthetus, *Blyth, Cat. B. Mus. As. Soc.* p. 293 (1849); *Layard, Ann. & Mag. Nat. Hist.* xiv. p. 271 (1854: Ceylon); *Jerdon, B. Ind.* iii. p. 844 (1864); *Walden, Tr. Z. S.* viii. p. 104 (1872); *Ball, Str. F.* 1873, p. 90 (Andaman Is.); *Hume, t. c.* p. 320; *Salvad. Ucc. Born.* p. 374 (1874); *Walden, Ibis*, 1874, p. 149 (Andaman Is.); *id. Tr. Z. S.* ix. pp. 244 & 262 (1877); *Wardlaw-Ramsay, Tweedd. Mem.* p. 660 (1881: Philippines); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 408 (1882); *id. Orn. Papuasia &c.* iii. p. 449 (1882); *Sclater, P. Z. S.* 1883, p. 52 (Timor Laut);

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* Type in Cambridge Museum examined.

Vorderm. Nat. Tijdschr. Nederl. Ind. xliv. p. 207 (1884: Java); *H. O. Forbes, op. cit.* 1884, p. 434 (Timor Laut); *W. Blasius, Braunschw. Anz.* 1888, p. 96; *id. Ornis*, 1888, p. 634 (Gt. Sanghir I.); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlix. p. 419 (1889: Sumatra); *Salvad. & Gigl. Mem. Acc. Tor.* xxxix. p. 104 (1889: Somali Coast); *Salvad. Aggiunte Orn. Papuasia &c.* pt. iii. p. 212 (1891); *Wiglesw. Abh. k. Mus. Dresden*, 1890–91, no. vi. p. 76 (1892: Polynesia).

Sterna infuscata, *Heugl. Ibis*, 1859, p. 351 (*nec Licht.*); *id. in Peterm. Mitth.* 1861, p. 32 (Red Sea).

Haliplana panaya, *Salvin, Ibis*, 1864, p. 381; *Coues, t. c.* p. 391 (Brit. Honduras).

Haliplana discolor, *Coues, Ibis*, 1864, p. 392 (Brit. Honduras); *Lawr. Ann. Lyc. N. Y.* viii. p. 104 (1864: Sombrero I.); *Elliot, New & Unfig. B. N. Amer.* ii. pl. 57 (1869).

Sterna nubilosa, *Sundev.* (*nec Sparrm.*) *K. Vet.-Akad. Stockh. Förh.* 1869, p. 589 (St. Bartholomew, W. Ind.).

Sterna panayana, *Swinh. P. Z. S.* 1870, p. 603 (Hakodadi, Japan).

Hydrochelidon anosthætus, *Gray, Hand-l. B.* iii. p. 122, no. 11080 (1871).

Haliplana anæstheta, *Swinh. P. Z. S.* 1871, p. 422; *David & Oustal. Ois. Chine*, p. 528 (1877); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 356 (1890).

Onychoprion panayensis, *Scl. & Salv. P. Z. S.* 1871, p. 572; *iid. Nomencl. Av. Neotrop.* p. 147 (1873); *Zeledon, Cat. Aves Costa Rica*, p. 36 (1882).

Hydrochelidon infuscata, *Heugl. Orn. N.O.-Afr.* p. 1512 & p. ccvi (nec p. 1457, which is *S. fuliginosa*) (1873).

Hydrochelidon anæsthetus, *Heugl. Orn. N.O.-Afr.* p. 1453 (1873); *Rochebr. Faun. Sénég., Ois.* p. 338 (1884).

Sterna (Haliplana) anæstheta, *Coues, B. N.-West*, p. 701 (1874).

Sterna anæsthetica, *Coues, Check-l. N. Amer. B.* p. 124 (1882); *id. Key N. Amer. B.* 2nd ed. p. 769 (1884).

Adult in breeding-plumage. Head as in the preceding species; loral stripe black; upper forehead, crown, and nape black; shoulders slate-grey, passing into dark greyish brown on the mantle; no visible white on the secondaries; primaries umber-brown, shafts black, the "wedges" on the inner webs very narrow and not sharply defined; rump and principal tail-feathers greyish brown like the mantle, but the streamers white on the outer and the upper portions of the inner webs, and the next pair of rectrices whitish at their bases; abdomen and breast greyish white; under wing-coverts and throat pure white: bill, tarsi, and toes black, the inner webs of the latter considerably excised. Total length 14–15 inches, culmen 1·8, wing about 10·3, tail 7·5, depth of fork 4, tarsus 0·8, middle toe with claw 1·2. The sexes are alike in plumage.

Adult in winter plumage. Similar to the above, but the lores and crown mottled with white for a short time.

Immature. Generally similar, but with more white on the head whitish tips to the feathers of the back, which, when fresh, are somewhat grey; a dark line along the upper wing-coverts, and less white on the outer rectrices. Full plumage is not attained until the bird is at least two years old.

Young. Head streaked and mottled with brownish black; feathers of the upper parts dark brown with rufous tips, which subsequently become paler, approaching white, and finally wear away; underparts greyish white; bill and toes brownish.

Adults from the West Indies show a trifle more white in the outer tail-feathers than is the case with some Oriental examples, but birds from the Red Sea are absolutely identical with the former.

Hab. Intertropical and juxta-tropical seas:—Gulf of Mexico and West Indies; West Africa, Lower Red Sea, East Africa, Madagascar and Mascarene Islands, and Indian Ocean generally; Moluccas, China Seas up to Japan, Pelew Is. &c., New Guinea, Northern Australia, the Fiji, Tonga, Ellice, and Phœnix Groups. In the Low Archipelago and in the Sandwich Islands Group the representative appears to be *S. lunata*.

a. Imm. sk.	Massowa, Red Sea, Aug. (*W. Jesse*).	Tweeddale Coll.
b. Imm. sk.	Red Sea (*Capt. Feilden, R.A.*).	H. Saunders Coll.
c, d. Ad. et juv. st.	Red Sea.	J. Middleton, Esq. [P.].
e. Vix ad. sk.	Red Sea (*Hemprich & Ehrenberg*).	Shelley Coll.
f, g. ♂ ♀ ad. sk.	Red Sea, April (*A. Anderson*).	H. Saunders Coll.
h–k. ♂ ♀ ad. sk.	Red Sea (southern part), May (*A. B. Meyer*).	Tweeddale Coll.
l, m. ♂ ad. sk.	Red Sea, off Perim I., Aug. 31 (*W. T. Blanford*).	Abyssinian Exped.
n, o. Ad. sk.	Gulf of Aden, April (*E. Lort Phillips*).	Shelley Coll.
p. Ad sk.	Gulf of Aden, April.	Major Yerbury [P.].
q. Imm. sk.	Mozambique.	— Thompson, Esq. [C.].
r, s. ♂ ♀ ad. sk.	Seychelles.	Shelley Coll.
t. Vix ad. sk.	Bird I., Seychelles (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
u–w. ♂ ad. et imm. sk.	Mekran Coast, May–June (*Col. E. A. Butler*).	Hume Coll.
x. Vix ad. sk.	Mekran Coast (*Capt. Bishop*).	Hume Coll.
y. ♂ juv.; *z–n'.* ♂ ♀ imm. sk.	Cherbaniani Reef, Laccadive Is., Feb. (*A. O. H.*).	Hume Coll.
o'. ♀ juv. sk.	Off Laccadive Is., 10° N., 70° E. (*G. Stephen*).	H. Saunders Coll.
p'. Juv. sk.	Indian Ocean, 5° 28′ N., 63° 53′ E., Nov. (*H. O. Forbes*).	H. Saunders Coll.
q', r'. ♂ ♀ imm. sk.	Off Cape Comorin, Sept. (*Dowker*).	Hume Coll.
s'. Juv. sk.	Ceylon.	Tweeddale Coll.
t', u'. Ad. et imm. sk.	Ceylon (*Col. W. V. Legge*).	H. Saunders Coll.
v'. ♀ ad.; *w'.* ♂ juv. sk.	Trincomalee, N.E. Ceylon, April & Dec. (*W. V. L.*).	R. B. Sharpe, Esq. [P.].
x'. ♀ imm.; *y'.* ♂ juv. sk.	Colombo, Ceylon, May & Oct. (*W. V. L.*)	R. B. Sharpe, Esq. [P.].

z'. ♂ ad.; *a''*, *b''*. ♂ juv. sk.	Colombo, Ceylon, May, Oct., & Nov. (*W. V. L.*).	H. Saunders Coll.
c''. Imm. sk.	Nagapatam River, Cachar, Feb. (*J. Inglis*).	Hume Coll.
d''. Juv. sk.	"India" (Madras?).	T. C. Jerdon, Esq. [P.].
e''. ♀ ad. sk.	Madras Coast, May (*W. Davison*).	Hume Coll.
f''. Imm. sk.	Bay of Bengal.	Tweeddale Coll.
g''. ♀ juv. sk.	Between Calcutta and Rangoon, Oct. (*W. Davison*).	Hume Coll.
h''. Imm. sk.	South Andaman I.	Hume Coll.
i''. ♀ imm. sk.	South Andaman I., March (*R. G. W. R.*).	Tweeddale Coll.
k''. Juv. st.	"Indian Archipelago."	Hon. E. India Co. [P.].
l''. ♂ juv. sk.	Between Penang and Malacca, Nov. (*W. Davison*).	Hume Coll.
m''–o''. ♂ ♀ imm. sk.	Madura Straits, N. Java, Jan. (*Conrad*).	R. B. Sharpe, Esq. [P.].
p''. Imm. sk.	Salayer, Celebes.	Wallace Coll.
q''. Juv. sk.	Ceram.	Tweeddale Coll.
r''. Juv. sk.	E. Ceram (*A. R. Wallace*).	Seebohm Coll.
s'', *t''*. Imm. sk.	E. Ceram (*A. R. W.*).	Wallace Coll.
u''. Juv. sk.	Waigiou (*A. R. W.*).	Wallace Coll.
v''. Juv. sk.	Waigiou (*A. R. W.*).	H. Saunders Coll.
w''. ♂ ad. sk.	Tenimber Id., Sept.	H. O. Forbes, Esq. [C.].
x''. ♀ ad. sk.	N. coast of New Guinea (*A. R. Wallace*).	Tweeddale Coll.
y''. ♂ ad. sk.	N.W. Australia, Sept.	P. W. Bassett-Smith, Esq. [P.].
z''. Ad. st.	Houtman's Abrolhos, W. Australia.	Gould Coll.
*a*³. Ad. sk.	Between Australia and New Zealand.	J. B. Jukes, Esq. [P.].
*b*³. Ad. sk.	[Australia?]	Sir G. Grey [P.].
*c*³. Ad. sk.	"Solitary Island" (? *Gilbert*).	Gould Coll.
*d*³. Ad. sk.	Bramble Cay, N. Australia, May 6, 1845 (*J. Macgillivray*).	Earl of Derby [P.].
*e*³. ♀ ad. sk.	Moreton Bay, Queensland, Jan. 1845 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
*f*³, *g*³. Ad. sk.	Cape York (*Cockerell*).	Salvin-Godman Coll.
*h*³. ♂ juv. sk.	Darnley I., Torres Straits, March 25, 1845 (*J. Macgillivray*).	Earl of Derby [P.].
*i*³. ♂ ad. sk.	Prince of Wales Channel, Torres Straits, Sept. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
*k*³. ♀ imm. sk.	Booby I., Torres Straits, Aug. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
*l*³. ♂ imm. sk.	Ovalau, Fiji Islands, Jan. 27 (*E. L. Layard*).	Seebohm Coll.
*m*³. Imm. sk.	Ellice Islands.	Whitmee Coll.
*n*³. Ad. sk.	Pelew or West Caroline Is. (*Kubary*).	H. Saunders Coll.
*o*³. Juv. sk.	China.	G. T. Lay, Esq. [P.].

p^3. Imm. sk.	Hakodadi, N. Japan, Nov. 4, 1865 (*C. Collingwood & R. Swinhoe*).	Seebohm Coll.
q^3. Juv. sk.	Cape Cañaveral, Florida (*W. Hoxie*).	Salvin-Godman Coll.
r^3. Ad. sk.	Clarence Harbour, Bahamas (*Cory*).	Salvin-Godman Coll.
s^3. Juv. st.	Jamaica (*Osburn*).	Salvin-Godman Coll.
t^3. Ad. sk.	Redonda I., Lesser Antilles (*Spence*).	Salvin-Godman Coll.
u^3. ♂ juv.; v^3–x^3. ♂ ♀ imm. sk.	Guadeloupe I., Lesser Antilles, Sept. (*C. S. Winch*).	Salvin-Godman Coll.
y^3. ♂ juv. sk.	St. Vincent, Lesser Antilles, July (*D. W. Smith*).	Salvin-Godman Coll.
z^3. ♂, a^4, b^4. ♀ imm. sk.	Grenada, Lesser Antilles, Sept. (*D. W. Smith*).	Salvin-Godman Coll.
c^4–e^4. ♂ ♀ ad. sk.	Southern Water and Saddle Cays, British Honduras, May 16 (*O. Salvin*).	Salvin-Godman Coll.

23. Sterna fuliginosa.

L'Hirondelle de mer brune, *Briss. Orn.* vi. p. 220, pl. xxi. fig. 1 (1760: juv.).

? Sterna fuscata, *Linn. Syst. Nat.* i. p. 228 (1766); *Gm. Syst. Nat.* i. p. 610; *Lath. Ind. Orn.* ii. p. 807 (1790); *Vieill. Enc. Méthod.* i. p. 95 (1823).

L'Hirondelle de mer à grande envergure, *Buff. Hist. Nat. Ois.* viii. p. 345 (1783).

Sooty Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 352 (1785); *id. Gen. Hist.* x. p. 102, pl. clxxiv. (1824: Christmas Id.).

Egg-Bird, *Cooke's 3rd Voy.* ii. p. 188 (1784: Christmas Id., breeding).

Simple Tern, var. A, *Lath. Gen. Syn.* iii. pt. 2, p. 356 (1785).

Brown Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 359 (1785: Cayenne); *id. Gen. Hist.* x. p. 129 (1824: juv.).

Dusky Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 360 (1785); *id. Gen. Hist.* x. p. 129 (1824: I. of S. Domingo, a very young bird).

Sterna fuliginosa, *Gm. Syst. Nat.* i. p. 605 (1788); *Lath. Ind. Orn.* p. 804 (1790); *Licht. Cat. Rerum nat. rar.* p. 27 (1793); *Wilson, Amer. Orn.* viii. p. 145, pl. 72. fig. 1 (1814); *Bp. Obs. Nomencl. Wilson*, no. 245 (1826); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 164 (1826); *Bp. Ann. Lyc. N. Y.* ii. p. 355 (1828); *Lesson, Traité*, p. 622 (1831); *Jard. ed. Wilson's Amer. Orn.* iii. p. 182 (1832); *Nuttall, Man. Orn.* ii. p. 284 (1834); *Audub. Orn. Biogr.* iii. (1835) p. 263, v. (1839) p. 641; *id. Synops.* p. 317 (1839); *Gould, Syn. B. Austr.* pt. 2, pl. fig. 1 (1837); *D'Orbign. in Sagra's Hist. Nat. Cuba*, p. 215 (1839); *Temm. & Schleg. F. Japon.* p. 133, pl. 89 (1842); *Audub. B. N. Amer.* 8vo ed. vii. p. 90, pl. 432 (1844); *Gray, List Anseres Brit. Mus.* p. 177 (1844); *id. Gen. B.* iii. p. 659 (1846: partim); *Reichenb. Natat.* tab. xxii. fig. 828 (1848); *J. F. Naum. Naumannia*, 1851, Bd. ii. p. 15 (Anhalt); *Yarr. Brit. B., 2nd Suppl.* p. 50 (1856); *Hartl. Orn. W.-Afr.* p. 254 (1857); *Cassin, Orn. U.S. Explor. Exped.* p. 386 (1858); *Baird, Cass., & Lawr. B. N. Amer.* p. 861 (1858); *Gray, P. Z. S.* 1859, p. 166 (New Caledonia); *Jones, Nat. Bermuda*, p. 91 (1859); *Heugl. Ibis*, 1859, p. 350 (Lower Red Sea and Somali Coast); *Naum. Vög. Deutschl., Anhang*, xiii. p. 267, Taf. 387

(1860); *Schleg. Mus. P.-B.*, Sternæ, p. 25 (1866); *Dresser, Ibis*, 1866, p. 44 (Texas); *Degl. & Gerbe, Orn. Eur.* ii. p. 462 (1867); *Finsch & Hartl. Faun. Centralpolyn.* p. 225 (1867); *Sperling, Ibis*, 1868, p. 286 (Ascension); *Sundev. K. Vet.-Akad. Stockh. Förh.* 1869, p. 582 (St. Bartholomew); *Finsch & Hartl. Vög. Ost-Afr.* p. 831 (1870); *Melliss, Ibis*, 1870, p. 106 (St. Helena); *Coues, Key N. Amer. B.* p. 322 (1872); *Harting, Handb. Brit. B.* p. 169 (1872); *Pelzeln, Ibis*, 1873, p. 123 (? type of Latham's Sooty Tern from Dalrymple Bay); *Finsch, Journ. Mus. Godeffr.* 1876, Hft. xii. p. 39 (Fiji, &c.); *Legge, Str. F.* iii. p. 378 (1876); *Saunders, P. Z. S.* 1876, p. 666 (revision); *Dresser, B. Eur.* viii. p. 307, pl. 587 (1877); *Merriam, B. Connecticut*, p. 134 (1877: five occurrences); *Hume, Str. F.* iv. (1877) p. 477 (Laccadive Isl., breeding); *Saunders, P. Z. S.* 1877, p. 796 (Ascension & Raine Is.); *id. Journ. Linn. Soc.* xiv. p. 404 (1878: distribution); *E. P. Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *Sharpe, Rep. Trans. Venus (Rodriguez), Phil. Trans.* clxviii. p. 464 (1879); *Saunders, Rept. H.M.S. 'Challenger,'* ii. *Birds*, p. 136 (1880); *Oustal. Bull. Soc. Philom.* 1878, p. 194 (Seychelles); *Fischer & Reichenow, J. f. O.* 1878, p. 247 (Zanzibar); *Penrose, Ibis*, 1879, p. 277 (Ascension); *Finsch, P. Z. S.* 1879, p. 15 (New Britain); *Legge, B. Ceylon*, p. 1036 (1880); *Cory, B. Bahamas*, p. 214 (1880); *Deane, Bull. Nutt. Orn. Cl.* 1880, p. 60 (Maine); *Tristr. Ibis*, 1881, p. 252 (Marquesas); *Finsch, t. c.* p. 540 (New Britain); *A. & E. Newton, Handb. Jamaica*, p. 117 (1881); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53, no. 691 (1881); *Salvin, Cat. Strickl. Coll.* p. 626 (1882); *Coues, Check-l. N. Amer. B.* p. 124 (1882); *Oates, B. Brit. Burm.* ii. p. 432 (1883); *Cory, B. S. Domingo*, p. 181 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 768 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 312 (1884); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 562 (1884); *Seebohm, Brit. B.* iii. p. 292 (1885); *Crowfoot, Ibis*, 1885, p. 266 (Norfolk I., breeding); *A. O. U. Check-l.* p. 95, no. 75 (1886); *Wells, Pr. U.S. Nat. Mus.* ix. p. 632 (1886: Grenada, breeding); *Saunders, P. Z. S.* 1886, p. 6 (Bath); *id. t. c.* p. 337 (Diego Garcia); *Finsch & Blas. Ornis*, 1887, p. 370, pls. 1, 2 (Diego Garcia); *MacFarl. Ibis*, 1887, p. 213 (Fanning Is., breeding); *id. t. c.* p. 214 (Jarvis Id.); *Ridgw. Man. N. Amer. B.* p. 45 (1887); *E. Newton, Tr. Norf. & Norw.* iv. p. 553 (1888: Mascarene Is.); *Stejn. Pr. U.S. Nat. Mus.* x. pp. 392, 414 (1888: Southern Loo-choo Is.); *Beckham, t. c.* p. 644 (Texas); *Everett, B. Borneo*, p. 211 (1889); *Saunders, Man. Brit. B.* p. 637 (1889); *Cory, B. West Ind.* p. 279 (1889); *Stejn. Pr. U.S. Nat. Mus.* xii. p. 379 (1889: Hawaii); *North, Nests & Eggs Austr. B.* p. 357 (1889); *Tristr. Cat. Coll. B.* p. 9 (1889); *Seebohm, B. Japan. Emp.* p. 302 (1890); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 303 (1890); *J. B. Young, Ibis*, 1891, p. 145 (Morant Cays, Jamaica); *Hartert, Kat. Vogelsamm. Senckenb.* p. 238 (1891); *Lister, P. Z. S.* 1891, pp. 300, 496 (Phœnix group); *Cory, Cat. B. West Ind.* p. 83 (1892); *Barnes, Ibis*, 1893, p. 178 (Aden & Somali, breeding); *Reichenow, Vög. Deutsch.-O.-Afr.* p. 2 (1894: Mafia, breeds).

Sterna spadicea, *Gm. Syst. Nat.* i. p. 610 (1788); *Lath. Ind. Orn.* ii. p. 807 (1790); *Bonnat. Enc. Méth.* i. p. 96 (1791); *Gray, Gen. B.* iii. p. 659 (1846).

Sterna infuscata, *Licht. Verz. Doubl.* p. 81 (1823: East Indies) *.

* Type in Berlin Museum examined.

Anous? fuscatus, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 141 (1826: juv.).

Anous? spadicea, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 143 (1826: imm.).

Sterna oahuensis, *Bloxham, Voy. 'Blonde,'* p. 251 (1826: Oahu).

Sterna serrata, *Wagler, Natürl. Syst. Amphib.* p. 89, note (1830: *ex R. Forster MS.*); *Forster, Descr. Anim.* p. 276 (1844: New Caledonia); *Reichenb. Natat. Novit.* lxix. t. 332. figs. 3635–3637 (1850); *Pelz. Reis. Novara, Vög.* p. 154 (1865: Indian Ocean).

Onychoprion serratus, *Wagler, Isis*, 1832, p. 277 (type of genus).

Planetis guttatus, *Wagler, Isis*, 1832, p. 1222 (type of genus: based on *S. guttata*, J. R. Forster's MS.); *Forst. Descr. An.* p. 211 (1844); *cf. Gray, List Genera*, p. 79 (1840) & p. 100 (1841: "similar to a word used in Entomology"); *Boie, Isis*, 1844, p. 189.

Haliplana fuliginosa, *Wagl. Isis*, 1832, p. 1224 (type of genus); *Boie, Isis*, 1844, p. 190; *Licht. Nomencl. Av.* p. 97 (1854: Arabia); *Bp. C. R.* xli. p. 1112 (1855: Marquesas Is.); *id. op. cit.* xlii. p. 772 (1856); *Coues, Pr. Phil. Acad.* 1862, p. 556; *id. Ibis*, 1864, p. 392; *Salvin, Ibis*, 1864, pp. 385, 392 (Brit. Honduras); *id. op. cit.* 1866, p. 200; *Lawr. Ann. Lyc. N. Y.* viii. p. 184 (1865: Nicaragua); *Blas. J. f. O.* 1866, p. 81 (revision); *Coues, B. N.-West*, p. 698 (1874); *Gundl. Orn. Cuba*, p. 311 (1876); *Hartl. Vög. Madagasc.* p. 388 (1877); *David & Oustal. Ois. Chine*, p. 528 (1877); *Layard, Ibis*, 1882, p. 541 (New Caledonia); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 356 (1890); *Rothsch. Avif. Laysan &c.* i. p. 39, pl. of nesting-place (1893).

Sterna melanura, *Gould, P. Z. S.* 1837, p. 156 (New South Wales, juv.); *Gray, Gen. B.* iii. p. 659 (1846).

Hydrochelidon fuliginosa, *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838); *Gosse, B. Jamaica*, p. 433 (1847); *Rochebr. Faun. Sénég., Ois.* p. 339 (1884).

Onychoprion serratus, *Gray, List Genera*, 1840, p. 79; *id. op. cit.* 1841, p. 100 (*ex Forster MS.*).

Haliplana serrata (*Forst.*), *Boie, Isis*, 1844, p. 190; *Bp. C. R.* xlii. p. 772 (1856).

Haliplana infuscata, *Boie, Isis*, 1844, p. 190; *Licht. Nomencl. Av.* p. 97 (1854: Senegal); *Bp. C. R.* xlii. p. 772 (1856).

Sterna guttata, *Forster, Descr. Anim.* p. 211 (1844: Easter Island).

Thalassipora infuscata, *Rüpp. Syst. Uebers.* p. 140 (1845: Tor, Red Sea); *Heugl. Syst. Uebers.* p. 71 (1856: Red Sea).

? Anous fuscata, *Gray, Gen. B.* iii. p. 661 (1846).

Anous l'herminieri, *Less. Descr. Mam. et Ois.* p. 255 (1847: Antilles).

Onychoprion fuliginosus, *Gould, B. Australia*, vii. pl. 32 (1848); *Reichenb. Vög. Neuholl.* p. 348 (1850); *J. Macgill. Narr. Voy. 'Rattlesnake,'* ii. p. 359 (1852); *Sclater, P. Z. S.* 1856, p. 144 (Ascension I.); *A. & E. Newton, Ibis*, 1859, p. 371 (I. of St. Croix, W. I.); *Gould, Handb. B. Austr.* ii. p. 408 (1865); *Sclat. & Salvin, P. Z. S.* 1871, p. 572 (revision); *Salvad. Faun. Ital., Ucc.* p. 282 (1871); *Sclat. & Salvin, Nomencl. Av. Neotrop.* p. 147 (1873); *Hume, Str. F.* 1873, p. 440 (Ceylon); *Salvad. Ucc. Borneo*, p. 373 (1874); *Giglioli, Ibis*, 1881, p. 218 (Piedmont); *id. Avif. Ital.* p. 415 (1886); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 408 (1882); *id. Orn. Papuasia &c.* iii. p. 447 (1882); *Zeledon, Cat. Aves Costa Rica*, p. 36 (1882); *E. P. Ramsay, Pr. Linn. Soc. N. S. W.* 1883, p. 39; *id. op. cit.* 1888

p. 678; *Salvad. Ucc. Ital.* p. 278 (1887); *Ramsay, Tab. List Austr. B.* p. 23 (1888); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlix. p. 420 (1889: Sumatra); *Etheridge, Zool. Ld. Howe's I.* p. 17 (1889); *Wiglesw. Abh. zool. Mus. Dresd.* 1890–91, p. 75, no. 372 (1892).

Sterna gouldi, *Reichenb. Natat.* tab. xxii. fig. 829 (1848); *id. op. cit. Novit.* ix. t. cclxxii. figs. 2267–8 (1850).

Sterna (Onychoprion) serrata, *Gray, Cat. B. Trop. I. Pacific*, p. 59 (1859).

Anous fuliginosus, *Finsch, Neu-Guinea*, p. 184 (1865).

Sterna luctuosa, *Phil. & Landb. Wiegm. Arch.* p. 126 (1866: Valdivia, Chili).

"Haliplana fuliginosa, var. crissalis, *Baird*," *Lawr. Pr. Bost. Soc. Nat. Hist.* xiv. pp. 285, 301 (1871: Tres Marias, Socorro, W. Mexico); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 318 (1874).

Hydrochelidon somalensis, *Heugl. Orn. N.O.-Afr.* pp. 1512 & ccvii (1873); *fide Finsch, in J. Mus. Godeffr.* xii. (1876) p. 39.

Hydrochelidon infuscata, *Heugl. Orn. N.O.-Afr.* p. 1457 (*nec* pp. 1512 & ccvi, which = S. anæstheta; *fide Finsch ut supra*).

Sterna (Haliplana) fuliginosa, *Coues, B. N.-West*, p. 698 (1874); *Streets, Bull. U.S. Nat. Mus.* vii. p. 27 (1877: Fanning Group).

Adult in breeding-plumage. Similar to the preceding species; but larger, the white frontal band and the superciliary stripe broader, the latter oblique and not reaching beyond the eye, from which it is separated by a narrow continuation of the black loral stripe; upper surface sooty black, the "wedges" on the inner webs of the primaries a trifle paler than the rest; streamers dull white on the outer webs and smoke-grey on the terminal half of the inner webs, remaining tail-feathers sooty black; under tail-coverts, abdomen, and flanks greyish white; breast and throat white: bill and feet black with a slightly reddish tinge, the web between the middle and the inner toe nearly full, and far less excised than in *S. anæstheta* and *S. lunata*. Total length about 17 inches, culmen 2·1, wing 11·75, tail about 7·5, and depth of the fork 4, tarsus 0·9, middle toe with the claw 1·1.

Adult in winter. Like the above, with white flecks on the lores and crown.

Immature. Brownish black above, darker on the upper wing-coverts; outer tail-feathers nearly as sooty black as the rest of the rectrices, except towards the tips; tarsi and toes reddish brown.

Nestling and Young. The chick when about three days old is streaked with greyish brown and dull white on the upper surface—darkest on the forehead—and chiefly stone-white below. When half-fledged, the feathers of the mantle are blackish, with broad white tips, which gradually wear down. When the bird is fully fledged these white tips are much narrower, the feathers of the upper parts are sooty brown, and the underparts are also of a somewhat paler brown, becoming lighter towards the vent. (In *S. anæstheta* and *S. lunata* the underparts are whitish.) Bill and feet reddish brown.

Hab. Tropical and juxta-tropical seas, wherever suitable islands

and reefs exist; occasionally wandering to Maine in North America, and to Europe, even as far as England. Almost unknown on the South American side of the Pacific; otherwise very generally distributed.

This and the two preceding species form a very natural group, differing from the other Sea-Terns in several points; for instance, only one egg is incubated at a time. But with every desire to separate them generically, I am unable to find any structural differences which would warrant such a proceeding.

a. Ad. st.	North America.	Purchased.
b, c. Ad. st.	North America.	H.R.H. Duke of Sussex [P.].
d–n. Ad. sk.	Corpus Christi Pass, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
o. ♂ ad. sk.	Veragua (*Arcé*).	Salvin-Godman Coll.
p. ♂ ad. sk.	Southern Water Cay, Brit. Honduras, May (*O. S.*).	Salvin-Godman Coll.
q. Ad. sk.	Mazatlan, W. Mexico, Dec. (*A. Forrer*).	Salvin-Godman Coll.
r. ♂ ad. sk.	Panama (*McLeannan*).	Salvin-Godman Coll.
s. Juv. sk.	Mouth of the Amazons.	H. Saunders Coll.
t. Ad. sk.	Fernando Noronha I., Sept. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
u, v. Pull.; *w, x*. Juv.; *y*. Ad. sk.	Ascension Island, Dec. (*Lt. Mountjoy Squire, R.N., & Prof. D. Gill*).	H. Saunders Coll.
z. ♀ ad. sk.	Ascension Id., April 4, 1873.	H.M.S. 'Challenger' Exp.
a'. Ad. sk.	Fernando Po, W. Africa.	L. Fraser Coll.
b'. Vix ad. sk.	Madagascar (*Margastre*).	Shelley Coll.
c'. Juv. sk.	Madagascar.	Capt. Bewsher [C.].
d'. Ad. sk.	Mauritius (*C. E. Bewsher*).	Shelley Coll.
e', f'. Ad. sk.	I. of Rodriguez (*Rev. H. H. Slater*).	Transit of Venus Expedition.
g'. Ad. sk.	I. of Rodriguez.	Sir John Kirk [P.].
h'. ♀ ad. sk.	Seychelle Is.	Shelley Coll.
i'–s'. ♂ ♀ ad.; *t'*. Juv.; *u', v'*. Pull. sk.	Laccadive Is., Feb. (*A.O. H.*).	Hume Coll.
w'. Vix ad. sk.	Ceylon, June (*W. V. Legge*).	Hume Coll.
x'. ♂ juv. sk.	Pegu, June.	E.W. Oates, Esq. [C.].
y'. Juv. sk.	Tonghoo (*Capt. Lloyd*).	Tweeddale Coll.
z'. ♂ vix ad. sk.	Duke of York Id.	Rev. G. Brown [C.].
a''. Vix ad. sk.	? Duke of York Id. (*Rev. G. Brown*).	Tweeddale Coll.
b'', c''. Ad. st.	Australia.	Sir Thos. Mitchell [P.].
d''. Ad. st.	Australia.	J. Gould, Esq. [P.].
e''. Juv. sk.	Houtman's Abrolhos, W. Australia, Feb. 1843 (*Gilbert & Gould*).	H. Saunders Coll.
f'', g''. Pull.; *h'', i''*. Juv. st.	Houtman's Abrolhos, Jan. 1843 (*Gilbert*).	Gould Coll.

k''. Ad. sk.	Between Australia and New Zealand.	E. Newman, Esq. [P.].
l'', *m''*. ♂ ♀ ad. sk.	Lord Howe Island (*Sydney Mus.*).	Seebohm Coll.
n''. Ad. sk.	Raine Island, N.E. Australia.	J. B. Jukes, Esq. [P.].
o'', *p''*. ♂ ♀ ad. sk.	Raine Island, N.E. Australia.	H.M.S. 'Challenger' Exp.
q''. ♂ ad. sk.	Levuka, Fiji Is., Feb. (*E. L. Layard*).	Tweeddale Coll.
r''. Juv. sk.	Suva, Fiji Is.	C. M. Woodford, Esq. [P.].
s''. ♂ imm. sk.	Phœnix Is., June.	J. J. Lister, Esq. [P.].
t''. Ad. sk.	Starbuck I., Oct. (*Comm. Macfarlane, R.N.*).	H. Saunders Coll.
u''. Ad. sk.	Howland I.	H. Saunders Coll.
v''. Ad. sk.	Krusenstern Is.	H. Saunders Coll.
w''. Ad.; *x''*. Juv. sk.	Oahu, Sandwich Is.	Sir E. Belcher [P.].
y''. ♂ ad. sk.	Bonin Islands, Aug. 1, 1890 (*P. A. Holst*).	Seebohm Coll.
z''. Skeleton.	I. of Rodriguez (*Rev. H. H. Slater*).	Transit of Venus Expedition.
a^3. Sternum.	Jamaica.	Gosse Coll.

24. Sterna balænarum.

Sternula balænarum, *Strickl. Contr. Orn.* 1852, p. 160; *Chapman, Trav. S. Afr.* ii. p. 425 (1868: Walvisch Bay); *Gurney, in Andersson's B. Damaraland*, p. 363 (1872); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890).

Sterna balænarum, *Gray, Hand-l. B.* iii. p. 121, no. 11064 (1871); *Saunders, P. Z. S.* 1876, p. 664 (revision); *Sharpe & Bouvier, Bull. Soc. Zool. France*, 1876, p. 314 (Massaba, Congo); *Reichenow, J. f. O.* 1877, p. 11 (Loango); *Saunders, Journ. Linn. Soc.* xiv. p. 403 (1878: distribution); *Bocage, Orn. Angola*, p. 490 (1881); *Sharpe, ed. Layard's B. S. Afr.* p. 705 (1884); *Salvin, Cat. Strickl. Coll.* p. 625 (1882: Damara-land; type); *Tristr. Cat. Coll. B.* p. 8 (1889).

Adult in breeding-plumage. Forehead, lores, crown, and nape black; mantle and rump pearl-grey; shafts of primaries white; outer webs and inner webs next the shafts on the two outer quills dark grey, in the others paler grey, the inner margins of all chiefly white; tail-feathers grey on the terminal portions and whitish towards their bases, the outer pairs chiefly white; underparts white: bill black, acute, the maxilla nearly straight; tarsi and toes ochre-yellow. Total length 9 inches, culmen 1·35, wing 6·7, tail 3, depth of fork 1, tarsus 0·55, middle toe and its long curved claw 0·65. The sexes are alike in plumage.

Adult in winter. Similar to the above, but lores, forehead, and crown flecked and mottled with white.

Immature. Like the above, but the upper wing-coverts slightly

darker, the base of the lower mandible horn-colour, and a faint greyish tint on the under surface.

Hab. Cape of Good Hope to Damaraland, wandering up the West Coast of Africa to the Congo. On the East side the species is said to range to Mtoni and Kingani; but even from Durban and the Seychelles all the small Terns I have examined belonged to *S. saundersi*.

a. Ad. sk.	South Africa.	Shelley Coll.
b, c. ♂ ♀ ad. sk.	Walvisch Bay, Nov. (*C. J. Andersson*).	Tweeddale Coll.
d. ♂ ad. sk.	Walvisch Bay, Jan. (*C. J. Andersson*).	H. Saunders Coll.
e. ♂ ad. sk.	Robben I., Cape G. Hope (*E. L. Layard*).	H. Saunders Coll.
f. Ad. sk.	Robben I., Cape G. Hope (*E. L. L.*).	Salvin-Godman Coll.

25. Sterna nereis.

Sternula nereis, *Gould, P. Z. S.* 1842, p. 140; *id. B. Austr.* vii. pl. 29 (1848: Bass Straits and West Australia); *id. Handb. B. Austr.* ii. p. 402 (1865); *Reichenb. Vög. Neuholl.* p. 347 (1850); *Layard, Ibis*, 1878, p. 265 (New Caledonia; breeding); *E. P. Ramsay, Tab. List Austr. B.* p. 23 (1888); *North, Nests & Eggs Austral. B.* pp. 358, 404 (1889).

Sterna parva, *Ellman, Zoologist*, 1861, p. 7473.

Sterna media, *J. R. Forst. Descr. Anim.* p. 20 (1844: Southern Ocean, outside the tropic).

Sterna nereis, *Gray, Gen. B.* iii. p. 659 (1846); *Reichenb. Natat.* tab. xxi. figs. 801–2 (1848); *Pelz. Verh. zool.-bot. Gesell. Wien*, xxii. p. 318 (1867); *Finsch, J. f. O.* 1870, p. 366, 1872, p. 253, 1874, p. 205; *Hutton, Cat. B. N. Zeal.* p. 42 (1871); *Buller, B. N. Zeal.* p. 285 (1873); *Sharpe, Voy Erebus & Terror, Birds*, App. p. 32 (1875); *Saunders, P. Z. S.* 1876, p. 663 (revision); *E. P. Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *id. op. cit.* 1883, p. 59 (Tasmania); *Buller, B. N. Zeal.* 2nd ed. ii. p. 75 (1888); *Tristr. Cat. Coll. B.* p. 9 (1889); *Hartert, Kat. Vogelsamml. Senckenb.* p. 238 (1891).

Sterna minuta, *Finsch, J. f. O.* 1867, pp. 337 & 347; *Gray, Hand-l. B.* iii. p. 121, no. 11062 (1871: partim).

Sterna alba, *Potts, Tr. N. Z. Inst.* 1870, p. 106.

Sternula placens, *Layard (nec Gould), Ibis*, 1881, p. 134; *id. op. cit.* 1882, p. 476 & p. 540 (New Caledonia; specimens in B.M. Coll.).

Adult in breeding-plumage. Forehead and lores white as far as the middle of the superciliary region; a black spot in front of the eye and a very narrow ring of black round the eye; crown and nape black; mantle very pale pearl-grey; outer primaries a shade darker, the shafts white, the outer webs grey, a narrow streak of grey on inside webs next the shafts and towards the tips, the rest of the inner webs chiefly pearl-grey, the extreme edges white; rump palest grey; tail-feathers white; underparts white: bill bright yellow, horn-coloured at the tip; tarsi and toes duller yellow. Total length 10 inches, culmen 1·5, wing 7·25, tail 4, depth of fork 2, tarsus 0·6,

middle toe and claw 0·7. Specimens with fully developed and unabraded tail-streamers appear to be rare in collections; it is probable that they are longer in the male than in the female.

Adult in winter. The black in front of and above the eye less marked; otherwise similar.

Immature. Like the above, but the crown greyish white; nape and a line backward from the eye dull black; a faint grey line on the upper wing-coverts; outer primaries darker; tail greyish white: bill and feet yellowish brown.

Young. Similar, but crown and nape mottled with dull brownish black; feathers of the mantle barred with ash and tipped with dull white; tail-feathers slightly mottled with ash-grey.

In all its stages of plumage this is by far the palest member of the group of Little Terns.

Hab. New Zealand, Australia, chiefly south of the Tropic of Capricorn, and New Caledonia.

a. Vix ad. sk.	Australia (*Boucard*).	H. Saunders Coll.
b. Ad. sk.; *c.* ♀ ad. st.	Houtman's Abrolhos.	Gould Coll.
d. Vix ad. sk.	West Australia.	A. J. Campbell, Esq. [P.].
e. Ad. sk.	West Australia.	Govmt. of Western Australia [P.].
f–i. ♂ ♀ ad. sk.	Ansevata, New Caledonia, May, Aug., Sept. (*E. L. Layard*).	H. Saunders & Seebohm Colls.
k. Ad. sk.	Wellington, New Zealand (*Dr. Hector*).	H. Saunders Coll.
l. Juv. sk.	Otago, New Zealand.	H. Saunders Coll.
m, n. Ad. sk.	New Zealand.	Sir Samuel Scott [P.].

26. Sterna sinensis.

Chinese Tern, *Lath. Gen. Syn.* iii. p. 365 (1785); *id. Gen. Hist.* x. p. 125 (1824).

Sterna sinensis, *Gm. S. N.* i. p. 608 (1788) (*ex Latham*); *Lath. Ind. Orn.* p. 809 (1790); *Less. Traité*, p. 621 (1831); *Saunders, P. Z. S.* 1876, p. 662 (revision); *Hume, Str. F.* viii. p. 160 (1879: Klang, Malay Peninsula); *Parker, op. cit.* ix. p. 490 (Ceylon, breeding); *Legge, B. Ceylon*, p. 1019 (1880); *Finsch, Ibis*, 1881, p. 540 (New Britain Group); *Salvin, Cat. Strickl. Coll.* p. 625 (1882); *Oates, B. Br. Burm.* ii. p. 430 (1883); *Finsch, Vög. Südsee*, p. 22 (1884: New Britain); *Seebohm, Ibis*, 1884, p. 32 (Japan); *id. op. cit.* 1887, p. 181 (Loo-choo Is.); *Sharpe, op. cit.* 1888, p. 204; *Whitehead, op. cit.* 1890, p. 60 (Paláwan); *Tristr. Cat. Coll. B.* p. 9 (1889); *Everett, B. Borneo*, p. 211, no. 562 (1889); *North, Nests & Eggs Austral. B.*, App. p. 405 (1890); *Styan, Ibis*, 1891, p. 509 (Lower Yangtse); *Stejn. Pr. U.S. Nat. Mus.* xiv. p. 489 (1891: Hitachi, Japan); *C. W. Campbell, Ibis*, 1892, p. 246 (Seöul, Corea, May); *Wiglesw. Abh. Mus. Dresd.* 1890–91, no. vi. p. 75 (1892: Polynesia, partim); *Styan, Ibis*, 1893, p. 437.

Sterna minuta (*nec L.*), *Horsf. Tr. Linn. Soc.* xiii. p. 193 (1820: juv.);

id. Zool. Research. Java, p. 8 (1824); *Cass. U.S. Expl. Exp.* p. 248 (1858: Loo-choo Is.); *Swinh. Ibis*, 1860, p. 68; *id. op. cit.* 1861, p. 345 (Amoy and Formosa); *Radde, Reise Sibir., Vög.* p. 388 (1863: Aigun, Lower Amoor); *Gray, Hand-l. B.* iii. p. 121 (1871: partim); *Blyth & Wald. B. Burm.* p. 163 (1875); *Tacz. Bull. Soc. Zool. France*, 1876, p. 261 (Lower Amoor); *Hume, Str. F.* vi. p. 492 (1878: Tonghoo); *Steere, List Mamm. & B. Exped. Philipp.* p. 27 (1890: Mindanao).

? Sterna sumatrana, *Raffles, Tr. Linn. Soc.* xiii. p. 329 (1821).

Viralva sinensis, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 173 (1826).

Sterna pusilla, *Temm. Man. d'Orn.* 2nd ed. pt. 4, p. 465 (1840).

Sternula pusilla (*Temm.*), *Boie, Isis*, 1844, p. 183.

Sternula sinensis, *Boie, Isis*, 1844, p. 183; *Swinhoe, P. Z. S.* 1863, p. 329; *id. Ibis*, 1863, p. 429; *Holdsw. P. Z. S.* 1872, p. 481 (Ceylon); *David & Oustal. Ois. Chine*, p. 527 (1877); *Legge, Str. F.* iii. p. 377 (1875); *id. op. cit.* iv. p. 246 (1876); *E. P. Rams. Pr. Linn. Soc. N. S. W.* ii. p. 201 (1878); *A. Müller, J. f. O.* 1882, p. 438 (Salanga I.); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 408; *id. Orn. Papuasia &c.* iii. p. 445 (1882); *Tacz. Bull. Soc. Zool. France*, 1885, p. 477 (Ussuria); *id. P. Z. S.* 1887, p. 611; *id. op. cit.* 1888, p. 469 (Corea); *E. P. Ramsay, Tab. List B. Austr.* p. 23 (1888); *Salvad. Aggiunte Orn. Papuasia &c.* p. 212 (1889); *Seebohm, B. Japan. Emp.* p. 298 (1890); *De la Touche, Ibis*, 1892, p. 503 (Swatow, breeding).

Sternula minuta (*nec L.*), *Swinhoe, P. Z. S.* 1863, p. 430; *id. op. cit.* 1871, p. 422 (Formosa and China); *Salvad. Ucc. Born.* p. 378 (1874); *Walden, Tr. Z. S.* viii. p. 118 (1874: Celebes); *Oates, Str. F.* iii. p. 349 (1875); *W. Ramsay, Ibis*, 1877, p. 472 (Sittang, breeding); *A. B. Meyer, Ibis*, 1879, p. 145 (Limbe Strs.); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 207 (1884: Java); *id. op. cit.* xlix. p. 420 (1889: Sumatra).

Sternula placens, *Gould, Ann. Nat. Hist.* viii. p. 192 (1871); *id. Bds. N. Guinea*, v. pl. 72 (1876); *Hume, Str. F.* iii. p. 282 (1875: Torres Straits); *E. P. Ramsay, P. Z. S.* 1877, p. 437 (Queensland to Illawarra); *Masters, Pr. Linn. Soc. N. S. W.* 1877, p. 63; *Ramsay, tom. cit.* p. 386 (Gulf of Carpentaria).

Sterna inconspicua, *Masters, Pr. Linn. Soc. N. S. W.* 1877, p. 63 (Cape York); *Ramsay, op. cit.* 1878, p. 201; *id. Tab. List B. Austr.* p. 23 (1888).

Adult male in breeding-plumage. Lores black from the base of the bill to the eye; forehead as far as little beyond the top of the eye white; crown and nape black; mandible pearl-grey; secondaries bordered with greyish white; shafts of the primaries pure white in the outer, and pale grey in the upper ones; outer web of the outer primary and a broad line next the shaft on its inner web dark grey; on the succeeding primaries paler grey; upper portions and edges of inner webs white; rump pearl-grey; tail white; underparts white: bill gamboge-yellow, tipped with black; tarsi and feet orange-yellow. Total length 11 inches when the streamers are fully developed, culmen 1·4, wing 7·4, tail 5·7, depth of the fork 3·4, tarsus 0·65, middle toe with claw 0·8.

Adult female. Slightly smaller than the male and with less-developed tail-streamers.

Adult in autumn. Similar, with more white on the forehead, and

shorter tail-streamers; the primaries darker on their terminal portions, owing to the disappearance of the frosting, until the new quills appear.

Immature. Like the above, but dull white on the crown and the front of the lores; primaries still darker, the outer shaft always white, the other shafts dusky; upper wing-coverts dark grey; tail-feathers greyish, and the streamers not much prolonged: bill dark brown, tarsi and toes ochreous.

Young. Forehead buffish white, crown with black streaks which become confluent on the nape; upper parts mottled and barred with buffish brown on a dull grey ground; bill horn-colour; feet ochre-yellow. When the bird is barely fledged the buff-colour predominates on the upper surface.

Hab. Ceylon, Bay of Bengal, Burma, Malacca, and Malayasia to New Guinea; Australia down to New South Wales; the Philippine Islands, and the China Seas up to Japan.

a–c. ♂ ♀ ad.; *d.* Juv.; *e.* ♀ vix ad.; *f.* Imm. sk.	Hambantotta, S.E. Ceylon, June 30 and July (*W. V. Legge*).	H. Saunders Coll.
g. ♂ juv. sk.	Kodiar Bay, Ceylon, Oct.	H. Saunders Coll.
h. ♂ ad. sk.	S.E. Ceylon, June (*W. V. L.*).	Hume Coll.
i. ♂ ad. sk.	S.E. Ceylon, July (*W. V. L.*).	R. B. Sharpe, Esq. [P.].
k. ♂ ad. sk.	Burmah (*E. W. O.*).	Oates Coll.
l. ♂ imm. sk.	Lower Pegu, April (*E. W. O.*).	Hume Coll.
m. ♀ imm. sk.	Tonghoo, April (*R. G. Wardlaw Ramsay*).	Tweeddale Coll.
n, o. ♂ vix ad. sk.	Salangore Coast, March (*W. Davison*).	Hume Coll.
p. Imm. sk.	Java (*Horsfield*).	E. India Mus. [P.].
q. ♀ imm. sk.	Matu River, Borneo, Aug.	A. H. Everett Coll.
r. ♀ vix ad. sk.	Santubong Bay, Borneo, Aug.	A. H. Everett Coll.
s. ♀ vix ad. sk.	Baram, Borneo, Sept.	A. H. Everett Coll.
t, u. Imm. sk.	Celebes.	H. Saunders Coll.
v–x. Ad. et imm. sk.	N. Australia.	Gould Coll.
y. Imm. sk.	Port Darwin.	Gould Coll.
z. Imm. sk.	Torres Straits.	Gould Coll.
a'. Imm. sk.	Cape York, Nov. 12, 1849 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
b'–d'. Imm. sk.	Cape York (*Cockerell*).	Salvin-Godman Coll.
e'. Ad. sk.	North Australia.	H. Saunders Coll.
f'. Imm. sk.	Queensland.	H. Saunders Coll.
g', h'. Imm. sk.	Amoy, China, Aug. (*R. Swinhoe*).	H. Saunders Coll.
i', k'. Imm.; *l', m'.* Juv. sk.	Amoy, Aug., Sept., Oct. (*R. S.*).	Seebohm Coll.
n, o. Imm. sk.	S.W. Formosa, Aug. 1861 (*R. S.*).	Seebohm Coll.
p'. Ad. sk.	Loo-choo Islands, June 1, 1886.	Seebohm Coll.

q'. Vix ad. sk.	Kiukiang, Yangtse, May (*F. Styan*).	H. Saunders Coll.
r'. Vix ad.; *s'*. Juv. sk.	Hankow, autumn (*R. S.*).	Seebohm Coll.
t'. Ad. sk.	Shanghai.	J. Webb, Esq. [P.].
u'. ♂ juv. sk.	Pootung, June.	Shanghai Mus. [P.].
v'. ♀ ad. sk.	Seöul, Corea, May (*C. W. C.*).	C. W. Campbell, Esq. [P.].
w'. Ad. sk.	Yokohama, Japan (*H. Pryer*).	Capt. Blakiston [P.].
x', *y'*. Juv. sk.	Yokohama, Japan (*H. P.*).	Seebohm Coll.
z'. Ad. sk.	Yokohama, Japan (*H. M. Harrison, R.N.*).	H. Saunders Coll.

27. Sterna minuta.

La petite Hirondelle de Mer, *Bris. Orn.* vi. p. 206, pl. xix. fig. 2 (1760); *Buffon, Hist. Nat. Ois.* viii. p. 337 (1783); *Daubent. Pl. Enl.* pl. 996 (1786).

The Lesser Tern, *Pennant, Br. Zool.* p. 244, pl. L 2 (1766); *id. ibid.* 2nd ed. p. 429 (1788); *Lath. Gen. Syn.* iii. pt. 2, p. 364 (1785); *Bewick, Brit. B.* ii. p. 168 (1821); *Yarr. Brit. B.* iii. p. 410 (1843).

Sterna minuta, *Linn. S. N.* i. p. 228 (1766); *P. L. S. Müll. S. N.* p. 353 (1773); *Gm. S. N.* i. p. 608 (1788); *Lath. Ind. Orn.* p. 809 (1790); *Bechst. Naturg. Deutschl.* ii. p. 837 (1791); *Meyer u. Wolf, Taschenb.* ii. p. 463 (1810); *Pallas, Zoogr. Rosso-Asiat.* p. 336 (1811: Caspian); *Temm. Man. d'Orn.* p. 487 (1815); *Meisner & Schinz, Vög. Schweiz*, p. 265 (1815); *Koch, Syst. baier. Zool.* p. 368 (1816); *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 41 (1816); *Nilss. Orn. Suec.* p. 162 (1817); *Temm. Man. d'Orn.* ed. ii. p. 752 (1820); *Brehm, Beitr. Vogelk.* iii. p. 724 (1822); *Licht. Verz. Doubl.* p. 82 (1823); *Brehm, Lehrb.* p. 692 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 163 (1825); *Werner, Atlas,* Palmipèdes, pl. 14 (1828); *Vieill. Faune franç., Ois.* p. 401 (1828); *Fleming, Brit. An.* p. 144 (1828); *Lesson, Traité*, p. 621 (1831); *Savi, Orn. Tosc.* iii. p. 94 (1831); *Selby, Brit. B.* ii. p. 475, pl. 89. figs. 3 & 4 (1833); *Jenyns, Man. Brit. Vertebr.* p. 267 (1835); *Eyton, Cat. Br. B.* p. 55 (1836); *Gould, B. Eur.* v. pl. 420 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838); *Naum. Vög. Deutschl.* x. p. 145, pl. 254 (1840); *Schinz, Europ. Faun.* p. 376 (1840); *Jerd. Madr. Journ.* xi. p. 224 (1840); *Crespon, Orn. Gard*, p. 479 (1840); *Keys. u. Blas. Wirb. Eur.* pp. xcvii & 246 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 279 (1840); *Selys-Longch. Faun. Belg.* p. 151 (1842); *Macgill. Man. Orn.* pt. ii. p. 324 (1842); *Crespon, Faune Mérid.* ii. p. 121 (1844); *Schl. Rev. Crit.* p. cxxx (1844); *Gray, List B. Brit. Mus.*, Anseres, p. 179 (1844); *Müdle, Orn. Griechenl.* p. 146 (1844); *Yarr. Brit. B.* ed. 2, iii. p. 519 (1845); *Gray, Gen. B.* iii. p. 659 (1846); *Hewits. Eggs Brit. B.* ii. p. 432, pl. 121. figs. 1 & 2 (1846); *Reichenb. Natat.* tab. xx. figs. 283–286 (1848); *Degl. Orn. Eur.* ii. p. 348 (1849); *Blyth, Cat. B. Mus. As. Soc.* p. 292 (1849); *Gray, List. Brit. B.* p. 268 (1850); *Thomps. B. Irel.* iii. p. 300 (1851); *Kjærb. Danm. Fugle*, p. 330, taf. xl. *b* (1852); *Macgill. Br. B.* v. p. 652 (1852); *Brandt in Lehmann's R. n. Buchara*, p. 330 (1852: Caspian); *Schl. Vog. Nederl.* p. 610, pl. 358 (1854); *Heugl. Syst. Uebers.* p. 70 (1856: N. Egypt); *Hartl. Orn. W.-Afr.*

p. 256 (1857 : Gambia) ; *Meyer, Brit. B.* vii. p. 95, pl. 294 (1857) ; *Jaub. et Barth.-Lapomm. Rich. Orn.* p. 406 (1859) ; *Linderm. Vög. Griechenl.* p. 178 (1860) ; *Tristr. Ibis*, 1860, p. 82 (Sahara) ; *Powys, t. c.* p. 356 (Corfu) ; *Simpson, t. c.* p. 393 (Missolonghi ; breeds) ; *Irby, op. cit.* 1861, p. 247 (Oudh & Kumaon) ; *Schl. Dier. Nederl. Vogels*, p. 240 (1861) ; *Gray, Cat. Brit. B.* p. 242 (1863) ; *Salvad. Ucc. Sard.* p. 122 (1864) ; *Jerd. B. India*, iii. p. 841 (1864) ; *Wright, Ibis*, 1864, p. 153 (Malta) ; *Filippi, Viagg. Pers.* p. 352 (1865) ; *Blas. J. f. O.* 1866, p. 74 (revision) ; *Degl. et Gerbe, Orn. Eur.* ii. p. 451 (1867) ; *Borggr. Vogelf. Norddeutschl.* p. 144 (1869) ; *Doderl. Avif. Sicil.* p. 243 (1869) ; *Droste, Vogelw. Borkum*, p. 332 (1869) ; *Salvad. Faun. Ital., Ucc.* p. 281 (1871) ; *R. Gray, B. West Scotl.* p. 470 (1871) ; *G. R. Gray, Hand-l. B.* iii. p. 121 (1871 : partim) ; *Harting, Handb. Brit. B.* p. 76 (1872) ; *Shelley, B. Egypt*, p. 300 (1872) ; *Godman, Ibis*, 1872, p. 222 (Canaries & Madeira : breeds) ; *Palmén, Finlands Foglar*, p. 577 (1873 : doubtfully) ; *Brooke, Ibis*, 1873, p. 346 (Sardinia) ; *Severtz. Turkest. Jevotn.* p. 70 (1873) and *Dresser's transl., Ibis*, 1876, p. 416 (breeds up to 4000 ft.) : *Durnford, Ibis*, 1874, p. 400 (N. Frisian Is., breeds) ; *Irby, Orn. Strs. Gibr.* p. 210 (1875) ; *Dresser, B. Eur.* viii. p. 279, pl. 582 (1876) ; *Blanf. East. Pers.* ii. p. 294 (1876) ; *Saund. P. Z. S.* 1876, p. 661 (revision Sterninæ) ; *Seeb. (Henke), Ibis*, 1882, p. 231 (breeds Seal Is., N. Caspian) ; *Salvin, Cat. Strickl. Coll.* p. 625 (1882) ; *B. O. U. List Brit. B.* p. 181 (1883) ; *Tristr. Faun. & Flor. Palest.* p. 135 (1884) ; *Radde, Orn. Cauc.* p. 486 (1884) ; *Saund. 4th ed. Yarr. Brit. B.* iii. p. 558 (1884) ; *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 127 (1885 : St. Petersburg ; seldom breeds) ; *Seeb. Brit. B.* iii. p. 289 (1885) ; *Homeyer, Ornis*, 1885, p. 81 ; *Lutke, tom. cit.* p. 146, and *Winge, op. cit.* 1886, p. 593 (Denmark ; breeds) ; *D. Torre u. Tsch. op. cit.* 1885, p. 564 (Bohemia) ; *Albarda, tom. cit.* p. 631 (Holland ; breeds) ; *Allèon, op. cit.* 1886, p. 424 (Dobrudsha ; breeds) ; *Giglioli, Avif. Ital.* p. 418 (1886) ; *Schneider, Ornis*, 1887, p. 552 (Up. Rhine ; breeds) ; *Booth, Rough Notes*, iii. (1887) ; *Salvad. Ucc. Ital.* p. 278 (1887) ; *Tait, Ibis*, 1887, p. 394 (Portugal ; breeds) ; *H-Brown & Buckl. Faun. Sutherl. &c.* p. 228 (1887) ; *Scully, J. As. Soc. Beng.* lvi. p. 88 (1887 : N. Afghanistan) ; *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. no. 3, p. 57 (1888 : Turkestan) ; *Taczan. Ornis*, 1888, p. 505 (Polish Vistula ; breeds) ; *Radde & Walter, Ornis*, 1889, p. 127 (Transcaspia) ; *Giglioli*, i. *Resoc. Av. Ital.* p. 632 (1889) ; *Tristr. Cat. Coll. B.* p. 9 (1889) ; *Lilford, Ibis*, 1889, p. 347 (Cyprus) ; *Zaroudnoi, Bull. Soc. Mosc.* 1889, p. 841 (Transcaspia) ; *Reichenow, Syst. Verz. Vög. Deutsch.* p. 61 (1889) ; *Riesenth. Wasservög. Mitteleurop.* p. 143 (1889) ; *Saund. Man. Brit. B.* p. 635 (1889) ; *Giglioli*, ii. *Resoc. Av. Ital.* p. 661 (1890) ; *Keller, Orn. Carinthiæ*, p. 307 (1890) ; *Stevenson & Southwell, B. Norfolk*, iii. p. 309 (1890) ; *Gätke, Vogelw. Helgol.* p. 586 (1891) ; *Payton, Ibis*, 1891, p. 465 (Mogador) ; *Frivaldsky, Av. Hungar.* p. 180 (1891) ; *Madarász, Ausst. Ung. Vogelf.* p. 120 (1891) ; *Giglioli*, iii. *Resoc. Av. Ital.* p. 517 (1891) ; *Jäckel & Blas. Vög. Bayerns*, p. 364 (1891) ; *H.-Brown & Buckl. Faun. Argyll &c.* p. 187 (1892) ; *Ussher, Pr. R. Irish Acad.* (3) iii. p. 410 (1894) ; *Irby, Orn. Strs. Gibr.* 2nd ed. p. 296 (1895).

Sterna metopoleucos, *S. G. Gm. Nov. Comm. Petr.* xv. p. 475, no. 17, tab. 22. fig. 1] (1771 : Woronetz) ; *J. F. Gm. S. N.* i. p. 608 (1788) ; *Lath. Ind. Orn.* p. 809 (1790).

The Hooded Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 365 (1785).

Sternula minuta, *Boie, Isis*, 1822, p. 563 (type of genus); *Kaup, Natürl. Syst.* pp. 95 & 196 (1829); *Gray, List Gen.* p. 79 (1840), and p. 100 (1841); *Bvie, Isis*, 1844, p. 183; *Rüpp. Syst. Uebers.* p. 140 (1845: Lower Egypt); *Reichenb. Syst. Nat.* tab. iv. (1850), and *Av. Syst. Nat.* p. v (1852); *Licht. Nomencl. Av.* p. 98 (1854); *Brehm, Naum.* 1855, p. 295; *Loche, Expl. Sc. Algér., Ois.* ii. p. 204 (1867); *Fritsch, Vög. Eur.* p. 460, Taf. 54. fig. 5 (1870); *Saund. Ibis*, 1871, p. 399 (Spain); *Gould, B. Gt. Brit.* v. pl. 73 (1873); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1441 (1873); *Hume & Henders. Lahore to Yark.* p. 303 (1873); *Reichenow, J. f. O.* 1874, p. 374 (God Coast); *Hume, Nests & Eggs Ind. B.* p. 654 (1875); *Scully, Str. F.* iv. p. 204 (1876: Yarkand & Kashgaria; breeds); *Menzbier, Bull. Mosc.* lviii. pt. 1, p. 136 (1883: Central Russia; breeds); *Sharpe, ed. Layard's B. S. Afr.* p. 705 (1884); *Olphe-Gall. Contr. Faun. Orn. Eur. Occid.* liv. x. p. 35 (1886); *Giglioli, Avif. Ital.* p. 418 (1886); *Salvad. Ucc. Ital.* p. 278 (1887); *Giglioli*, i. *Resoc. Av. Ital.* p. 632 (1889); *id.* ii. *Resoc.* p. 661 (1890); *id.* iii. *Resoc.* p. 517 (1891); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890).

Sternula fissipes, *Brehm, Vög. Deutschl.* p. 790 (1831); *id. Vogelf.* p. 349 (1855).

Sternula pomarina, *Brehm, Vög. Deutschl.* p. 791 (1831); *id. Naum.* 1855, p. 295; *id. Vogelf.* p. 349 (1855).

Sternula danica, *Brehm, Vög. Deutschl.* p. 791 (1831); *id. Naum.* 1855, p. 295; *id. Vogelf.* p. 349 (1855).

Hydrochelidon minuta, *Bp. Cat. Ucc. Eur.* p. 77 (1842).

Sternula orientalis, *Licht. Nomencl. Av.* p. 98 (1854: East Indies*).

Sternula danubialis, *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 349 (1855).

Sternula meridionalis, *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 349 (1855).

Sterna gouldi, *Hume, Str. F.* v. p. 326 (1877: India; *nec Reichenb.*, which is *S. fuliginosa*); *V. Ball, Str. F.* vii. p. 233 (1888); *J. R. Cripps, t. c.* p. 314 (E. Bengal); *Hume, op. cit.* viii. p. 116 (1879: List); *id. op. cit.* ix. p. 131 (1880); *id. op. cit.* xi. p. 350 (1888: Lower Brahmaputra).

Adult in breeding-plumage. Very similar to the preceding species, but somewhat smaller; the two outer pairs of primaries with *blackish* shafts and generally darker webs; tail-streamers never so much prolonged; otherwise identical. Total length 9·5 inches when the streamers are fully developed, culmen 1·4, wing 6·75, tail 3·7, depth of fork 1·6, tarsus 0·7, middle toe with claw 0·8. The female has the streamers less prolonged than the male; and, owing to this species passing a good deal of time on the ground, its tail-feathers are seldom to be seen at their best.

Adult in winter, Immature, and Young. As in *S. sinensis*, with the difference that the two and even the three outer pairs of primaries with their shafts are consistently darker.

Nestling. Pale buff above, marbled with black; tawny white below.

Hab. Europe from about 60° N. (rare in the Baltic), as far south as the Mediterranean and the Caspian, breeding; N. Africa; the

* Type in Berlin Mus. examined.

coast of W. Africa to the Cape of Good Hope in winter; Transcaspia, Turkestan, and Northern India (breeding); Burma and even Java.

I cannot find any constant specific characters for distinguishing *Sterna gouldi* of Hume.

a, *b*. Ad. et pull. sk.	British Islands.	Gould Coll.
c, *d*. Ad. et pull. sk.	British Islands.	Salvin-Godman Coll.
e. Ad.; *f*, *g*. Pull. sk.	Tent's Moss, Fife (*Henderson*).	H. Saunders Coll.
h. ♂ juv. sk.	Hunstanton, Norfolk, Aug. (*J. H. Gurney*).	H. Saunders Coll.
i, *k*. Juv. sk.	Blakeney, Norfolk, Aug. (*H. S.*).	H. Saunders Coll.
l, *m*. ♂ ad.; *n*, *o*. ♀ ad. sk.	Blakeney, Norfolk, Aug. (*Dack*).	Hume Coll.
p. ♀ ad. sk.	Salthouse, Norfolk, Aug. (*Dack*).	Seebohm Coll.
q–*x*. Ad.; *y*–*c'*. Pull. st.	Dungeness.	Major W. Verner [P.].
d'–*f'*. ♂ ♀ ad. sk.	Romney, Kent, May.	R. B. Sharpe, Esq. [P.].
g', *h'*. ♂ ♀ imm.; *i'*–*l'*. Juv. sk.	Romney, Kent, Sept.	R. B. Sharpe, Esq. [P.].
m'. Imm.; *n'*. Juv. st.	New Romney, Aug., Sept.	Shelley Coll.
o'. Ad. sk.	Sussex.	Col. Montagu [P.].
p'. ♂ ad. sk.	Pagham, April (*J. E. Harting.*).	H. Saunders Coll.
q', *r'*. Ad. sk.	Pagham, Aug. (*G. E. S.*).	Shelley Coll.
s'. ♂ juv. sk.	Pagham, Sept.	Dr. Günther [P.].
t', *u'*. ♂ ♀ imm.; *v'*. ♂ juv. sk.	Pagham, Sept.	R. B. Sharpe, Esq. [P.].
w'. Juv. sk.	Weymouth.	Col. Montagu [P.].
x' Ad. sk.	Sylt, North Frisian Is., June (*Baker*).	Salvin-Godman Coll.
y'. Ad.; *z'*. Pull. sk.	Wesel-on-Rhine, Aug.	E. Hartert, Esq. [P.].
a''. Ad. sk.	Hungary, Aug.	Hungarian Mus. [P.].
b''. ♂ ad. sk.	Missolonghi, Greece, June (*H. Seebohm*).	H. Saunders Coll.
c''. Ad. sk.	Sardinia (*J. J. Dalgleish*).	H. Saunders Coll.
d''. Ad. sk.	Tunis (N. Africa).	L. Fraser Coll.
e''. ♂ ad. sk.	Málaga, Spain, April (*Rios*).	H. Saunders Coll.
f''. ♂ ad. sk.	Near Seville, May.	H. Saunders Coll.
g''. Imm. sk.	San Lucar de Barrameda (*F. Forrester*).	H. Saunders Coll.
h''. Ad. sk.	West Africa.	Purchased.
i'', *k''*. Ad. et imm. sk.	Niger Expedition.	Mrs. Heywood & Capt. Allen, R.N. [P.].
l''. Imm. sk.	Cape Seas.	Sir A. Smith [P.].
m'', *n''*. ♂ ad. sk.	Yarkand, May (*J. Scully*).	Hume Coll.
o''. Juv. sk.	Pilloor, Sutlej river, near Aliwal, May.	Hume Coll.
p''–*r''*. Ad. sk.	N.W. India (*S. P.*).	Pinwill Coll.

s'', *t''*. ♂ ad. sk.	Futtehgurh, April, May (*A. Anderson*).	Seebohm Coll.
u''. ♂ ad. sk.	Futtehgurh, May (*A. A.*).	H. Saunders Coll.
v''–*x''*. ♂ ad. sk.	Etawah, March.	Hume Coll.
y'', *z''*, *a*³. ♂ ad. sk.	Cawnpore, April (*A.O.H.*).	Hume Coll.
*b*³. ♂ ad.; *c*³. Juv. sk.	Allahabad, March & Aug.	Hume Coll.
*d*³. Imm. sk.	Oudh, Dec.	Hume Coll.
*e*³. ♂ ad. sk.	Mahanadi River, April (*V. Ball*).	Hume Coll.
*f*³. ♂ ad. sk.	Faridpur, June (*J. R. Cripps*).	Hume Coll.
*g*³–*r*³. ♂ ad.; *s*³–*u*³. ♀ ad.; *v*³–*y*³. Imm. sk.	Goalundo, Lower Bramahputra River, April (*J. C. Parker*).	Hume Coll.
*z*³. ♂ ad. sk.	Godavery River, May (*W. T. Blanford*).	Hume Coll.
*a*⁴, *b*⁴. ♂ ♀ ad.; *c*⁴. ♀ juv. sk.	Sittang River, June.	E. W. Oates Coll.
*d*⁴. ♂ imm. sk.	Sittang River, June (*E. W. O.*).	Hume Coll.
*e*⁴. ♀ imm. sk.	Salangore coast, Aug. (*W. Davison*).	Hume Coll.
*f*⁴. Juv. sk.	Java.	India Mus. [P.].
*g*⁴. Skeleton.	England.	Zoological Society.
*h*⁴. Sternum.	England.	John Ray, Esq. [P.].

28. Sterna saundersi.

Sterna minuta (*nec L.*), *Heuglin, Ibis*, 1859, p. 351 (Red Sea); *Schlegel, Mus. P.-Bas*, Sternæ, p. 22 (1863: partim, Natal*); *Finsch, Tr. Z. S.* vii. p. 304 (1870: Zoulla, June); *Butler, Str. F.* v. p. 324 (1877); *Oustal. Bull. Soc. Philomath.* 1878, p. 194 (Seychelles); *Verbury, Ibis*, 1886, p. 23 (Aden and Somali-land); *Sharpe, op. cit.* 1891, p. 115 (Fao, Persian Gulf, breeding); *Barnes, op. cit.* 1893, p. 177 (Aden).

Sterna sp. ?, *Finsch, Tr. Z. S.* vii. p. 304, no. 219 (1870: Zoulla).

Sternula minuta, *Heugl. Orn. N.O.-Afr.* p. 1441 (1873); *Hartl. Faun. Madagasc.* p. 390 (1877); *Hume, Str. F.* iv. p. 469 (1876: Laccadives).

Sterna sumatrana (*nec Raffl.*), *Saunders, P. Z. S.* 1876, p. 663 (revision Sterninæ †); *Everett, B. Borneo*, p. 211, no. 563 (1889).

Sterna saundersi, *Hume, Str. F.* v. pp. 324–6 (1877: Karachi, type in B. M.); *id. op. cit.* viii. p. 116 (List I. B.); *Vidal, op. cit.* ix. p. 95 (Malabar coast); *Legge, B. Ceylon*, p. 1023 (1880); *Sharpe, Ibis*, 1886, p. 493 (Fao, breeding).

Sterna balænarum (*nec Stickl.*), *E. Newton, Tr. Norfolk Soc.* iv. p. 553 (1888: Mascarene Is.) ‡; *Reichenow, Vög. Deutsch-O.-Afr.* p. 21 (1894: Mtoni and Kingani).

? Sternula novella, *Hartl. Abh. Ver. Brem.* xii. p. 45 (1891: Mtoni, E. Africa).

Adult in breeding-plumage. Similar to the preceding species, from

* Procured by Jules Verreaux, who gave it the MS. name of *Sterna natalensis* (1858).

† Name adopted provisionally, in default of a series of specimens.

‡ Specimen at Cambridge examined.

which it may be distinguished by its rather paler mantle, greyer rump and tail-feathers, the blackness of the webs of the three outer primaries on both sides of the black shafts, contrasting strongly with the pure white of the inner margins of the webs, and the straightness of the bill, in which the maxilla is not at all decurved. Bill dusky yellow, usually black at the tip for 0·5 in.; tarsi and toes brownish yellow. Total length 9 inches, culmen 1·3, wing 6·6, tail 3, depth of fork 1·1, tarsus 0·6, middle toe with claw 0·7. The sexes appear to be alike in plumage.

Adult in winter. Like the above, but lores and crown flecked with white, bill duller in colour.

Immature. Forehead and lores greyish white, a patch of smoke-grey in front of the eye, crown with black streaks which coalesce on the nape; mantle much darker grey than in the adult, and the blackish line along the upper wing-coverts strongly pronounced; the three outer primaries and their shafts as before in their normal state, but the shafts are sometimes abraded till they are brownish, the fourth and fifth primaries also brownish black: bill blackish; feet brown.

Young. Upper parts with more fawn-white, mottled with brown; otherwise like the above.

Hab. Lower Red Sea, East Coast of Africa to Natal, Madagascar, Mascarene and Seychelle Islands, Arabian Sea, Persian Gulf, Indian coast, Ceylon, and Burma.

Of all the members of the group, this comes nearest to *S. balænarum* in the shape of the bill, and immature examples have been ascribed to that species. It is certainly remarkable that *S. saundersi* should go down to Natal (Durban Bay), but after careful examination of specimens I can come to no other conclusion.

a, b. Juv. et imm. sk.	Suakin, Red Sea.	Capt. R. H. Penton [P.].
c. ♂ imm. sk.	Zoulla, Red Sea, June 1868 (*W. Jesse*).	Tweeddale Coll.
d, e. ♂ ♀ imm. sk.	Durban Bay, S.E. Africa, March (*Shelley Mus.*).	H. Saunders Coll.
f. ♀ imm. sk.	Seychelles.	Shelley Coll.
g. Imm. sk.	Mohammerah, Persian Gulf.	K. Loftus, Esq. [P.].
h–n. Imm. sk.	Fao, Aug.–Sept.	W. D. Cumming, Esq. [P.].
o. Imm. sk.	Bushire, Feb.	A. J. V. Palmer, Esq. [P.].
p. Imm. sk.	Persian Gulf.	Hume Coll.
q, r. Imm. sk.	Ghiznee (*H. Gould*).	India Museum [P.].
s, t. ♂ imm.; *u, v.* ♀ ad.; *w, x.* Ad. sk.	Karachi, April, May, and July (*E. A. Butler & S. Doig*).	Hume Coll.
y–f'. ♂ ♀ ad. sk.	Cherbaniani Reef, Laccadive Is., Feb. (*A. O. H. & J. Armstrong*).	Hume Coll.
g'. ♂ imm. sk.	Madras, June.	Hume Coll.
h'. Imm. sk.	Ceylon.	Tweeddale Coll.
i'. Imm. sk.	Ceylon.	H. Saunders Coll.

k'. ♂ juv. sk.	Kodiar Bay, Ceylon, Oct. (*W. V. Legge*).	R. B. Sharpe, Esq. [P.].
l'. ♀ imm. sk.	Mouth of Nahr-wida-ganga, Ceylon, Oct. (*W. V. L.*).	H. Saunders Coll.
m'. ♀ vix ad. sk.	Hambantota, Nahr-wida-ganga, June (*W. V. L.*).	H. Saunders Coll.
n'–p'. ♀ imm. sk.	Lower Pegu, Nov. and April.	E. W. Oates Coll.

29. Sterna antillarum.

Sterna minuta (*nec L.*), *Wilson, Amer. Orn.* vii. p. 84, pl. 70. fig. 2 (1813); *Bp. Obs. Nomencl. Wilson*, no. 242 (1826); *id. Ann. Lyc. N. Y.* ii. p. 355 (1828); *Jard. ed. Wilson's Amer. Orn.* ii. p. 371 (1832); *Audub. Orn. Biog.* iv. p. 175 (1838); *id. Synops.* p. 321 (1839); *id. B. Amer.* 8vo, vii. p. 119, pl. 439 (1844); *Giraud, B. Long I.* p. 350 (1844); *Lembeye, Av. Cuba*, p. 123 (1850); *Putnam, Pr. Essex Inst.* i. p. 221 (1856); *Sharpe, Ibis*, 1872, p. 74 (Nagua River, Fantee).

Sterna argentea, *Nuttall, Man. Orn.* ii. p. 280 (1834: *nec Neuwied*, 1820); *Bp. Comp. List*, p. 61 (1838); *Gosse, B. Jamaica*, p. 437 (1847); *Léot. Ois. Trinid.* p. 545 (1866).

? Sternula bailloni, *Boie, Isis*, 1844, p. 183 (Newfoundland).

Sternula antillarum, *Less. Descr. Mamm. et Ois.* p. 256 (1847: Guadeloupe).

Sternula melanorhyncha, *Less. Descr. Mamm. et Ois.* p. 252 (1847: juv., Guadeloupe).

Sterna frenata, *Gambel, Pr. Philad. Acad.* 1848, p. 128; *Baird, Cass., & Lawr. B. N. Amer.* p. 864 (1858); *Baird, Cat. N. Amer. B.* no. 694 (1859); *Brewer, Pr. Bost. Soc. N. H.* vii. p. 308 (1860: Cuba); *Coues & Prentice, Smiths. Rep.* 1861, p. 418 (Washington); *Gundl. J. f. O.* 1862, p. 93 (Cuba); *Dresser, Ibis*, 1866, p. 44 (Texas); *Turnbull, B. E. Pennsylv.* p. 39 (1869); *Snow, B. Kansas*, p. 12 (1873).

Sternula australis, *Licht. Nomencl. Av.* p. 98 (1854: South Africa) *.

Sternula frenata, *Bp. C. R.* xlii. p. 773 (1856).

Sternula superciliaris (*nec V.*), *Cab. J. f. O.* 1857, p. 232 (Cuba).

Sterna antillarum, *Coues, Pr. Philad. Acad.* 1862, p. 552 (revision); *id. Ibis*, 1864, p. 390 (Brit. Honduras); *Lawr. Ann. Lyc. N. Y.* viii. p. 106 (1864: Sombrero); *Gundl. Rep. Fisico-Nat. Cuba*, i. p. 393 (1866); *Salvin, Ibis*, 1866, p. 199 (Brit. Honduras); *Bryant, Pr. Bost. Soc. N. H.* xi. p. 98 (1867: San Domingo); *Coues, Pr. Essex Inst.* v. p. 308 (1868: New England, breeds); *Coues, Pr. Philad. Acad.* 1871, p. 45 (North Carolina, breeds); *Scl. & Salv. P. Z. S.* 1871, p. 571 (revision); *iid. Nomencl. Av. Neotr.* p. 147 (1873); *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Gundl. J. f. O.* 1874, p. 314 (Porto Rico); *id. op. cit.* 1875, p. 391 (Cuba); *id. Orn. Cuba*, p. 310 (1876); *Saunders, P. Z. S.* 1876, p. 661 (revision Sterninæ); *Lawr. Bull. U.S. N. Mus.* iv. (1876) p. 52 (Tehuantepec); *Gundl. J. f. O.* 1878, p. 163 (Porto Rico); *Lawr. Pr. U.S. Nat. Mus.* i. p. 68 (1878: Dominica); *A. & E. Newton, Handb. Jamaica*, p. 117 (1881); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Salvin, Cat. Strickl. Coll.* p. 625 (1882); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 309 (1884); *Cory, B. S. Domingo*, p. 179 (1884); *id. List B. W. Ind.* p. 33

* Type in Berlin examined and compared with American specimens.

(1885); *Goss, B. Kansas*, p. 3 (1886: breeds); *A. O. U. Check-list, N. Amer. B.* p. 95 (1887); *Ridgw. Man. N. Amer. B.* p. 46 (1887); *Cooke, Bird-Migr. Mississip. Vall.* p. 58 (1888); *Feilden, Ibis*, 1889, p. 502 (Barbados); *Cory, B. West Indies*, p. 280 (1889); *id. Cat. West-Ind. B.* p. 83 (1892); *Rhoads, Pr. Philad. Acad.* 1892, p. 101 (Texas); *Hartert, Ibis*, 1893, pp. 310, 337 (Aruba I. and Bonaire I.).

Sterna minuta americana. *Sundev. K. Vet.-Akad. Stockh. Förh.* 1869, p. 589 (St. Bartholomew, West Indies).

Sterna superciliaris, *Blas. J. f. O.* 1866, p. 74; *Gray, Hand-l. B.* iii. p. 121, no. 11066 (1871); *Coues, Key N. Amer. B.* p. 322 (1872); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 318 (1874: Manzanilla, W. Mexico); *Cory, B. Bahamas*, p. 213 (1880: breeds); *id. op. cit.* 2nd ed. p. 213 (1890).

Sterna superciliaris antillarum, *Coues, B. N.-West*, p. 692 (1874); *Merriam, B. Conn.* p. 134 (1877); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 66 (1878: Rio Grande, Texas); *Coues, Check-list N. Amer. B.* p. 123 (1882); *Stearns & Coues, New Engl. Bird-life*, p. 374 (1883); *Coues, Key N. Amer. B.* 2nd ed. p. 776 (1884).

Adult in breeding-plumage. Differs from the preceding species in having the upper mantle and tail of a darker and bluer grey, and only the two outer pairs of primaries have black shafts with black webs on either side; the black stripe on the inner web is also a trifle narrower: bill stouter, the maxilla more curved, yellow, with little black at the tip, though the amount varies; tarsi and toes orange-yellow. Total length 8·75 inches, culmen 1·3, wing 6·55, tail 3·6, depth of fork 1·8, tarsus 0·6, middle toe with claw 0·7. The sexes seem to be alike externally.

Adult in winter. Probably as in summer, with merely some extension of white on the lores and crown, and duller colours to the bill and feet. I have never seen a specimen.

Immature. Forehead and crown nearly white, orbital regions and nape dull black; the usual dark line along the carpal joint and upper wing-coverts; lower primaries dark grey, the upper ones paler, with a brown tinge, and white on the inner margins: bill nearly black; tarsi dull brown.

Young. Forehead and crown pale buff or dull white, with brown flecks which become confluent round the eye and on the nape; feathers of the upper surface dull grey, with brown arrow-shaped centres and buff or white margins; primaries chiefly dark grey with dark shafts: bill horn-colour; feet yellowish brown.

Nestling. Stone-white, marbled with ash-brown above, dull white below.

Hab. Temperate and Tropical North America, occasionally visiting Newfoundland and Labrador; breeding along the Mississippi and Missouri valleys from Dakota downwards, and on the coast from New England down to the West Indies generally, the Leeward Islands and Trinidad; on the Pacific side from California to Mexico and Central America. In winter occasionally to the West and South-west coast of Africa.

a, b. Ad.; *c.* Imm. sk.	North America (*Krider*).	H. Saunders Coll.
d–f. ♀ ad. sk.	Ipswich, Massachusetts, June and July (*Dr. Brewer & C. J. Maynard*).	H. Saunders Coll.
g. ♀ ad. sk.	Ipswich, Mass. (*C. J. M.*).	Salvin-Godman Coll.
h. ♂ juv. sk.	Nantucket, Mass. (*W. Brewster*).	Salvin-Godman Coll.
i–l. Pull. sk.	Bone I., Virginia, July (*Ridgway*).	Salvin-Godman Coll.
m. Juv. sk.	Bone I., Va., July (*Ridgway*).	H. Saunders Coll.
n. ♂ ad. sk.	Cobb's I., Va., June (*C. M. Jones*).	H. Saunders Coll.
o, p. ♂ ♀ ad.; *q.* Pull. sk.	Cobb's I., Va., July (*H. W. Henshaw*).	Salvin-Godman Coll.
r s. Ad. et imm. sk.	Caper's I., South Carolina, April (*J. H. Batty*).	Salvin-Godman Coll.
t–b′. ♂ ♀ ad. sk.	Brownsville, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
c′–f′. ♂ ♀ ad.; *g′.* ♀ imm. sk.	Corpus Christi, Texas, May (*F. B. A.*).	Salvin-Godman Coll.
h′–k′. ♂ ad. sk.	Antigua, Lesser Antilles, May (*C. S. Winch*).	Salvin-Godman Coll.
l′. ♂ imm. sk.	Barbados, Sept. (*H. W. F.*).	Col. H. W. Feilden [P.].
m′. Ad. sk.	Venezuela.	Dyson Coll.
n′–q′. ♂ ♀ ad. sk.	Long Cay, Glover's Reef, Brit. Honduras, May (*O. Salvin*).	Salvin-Godman Coll.
r′–t′. ♂ ad. et imm. sk.	San Blas, Tepic Terr., April (*W. B. Richardson*).	Salvin-Godman Coll.
u′. Imm. sk.	Nagua River, Fantee, W. Africa, February 1871 (*Gov. Ussher*).	H. Saunders Coll.

30. Sterna superciliaris.

Hati ceja blanca, *Azara, Apunt. Par. Parag.* iii. p. 377 (1802).

Hati manchado, *id. tom. cit.* p. 377 (juv.).

Sterna superciliaris, *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 126 (1819: based on the above "Hati ceja blanca"); *id. Enc. Méthod.* i. p. 350 (1820); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 149 (1825); *Gray, Gen. B.* iii. p. 659 (1846); *Scl. & Salv. P. Z. S.* 1866, p. 200 (Lower Ucayali); *iid. op. cit.* 1867, p. 593 (River Tocantins); *iid. op. cit.* 1871, p. 571 (revision); *iid. op. cit.* 1873, p. 310 (E. Peru); *iid. Nomencl. Av. Neotrop.* p. 147 (1873); *Reinh. Vid. Med.* 1870, p. 19 (Brazil); *Salvin, Ibis*, 1874, p. 319; *Coues, B. N.-West*, p. 692 (1874: partim); *Saunders, P. Z. S.* 1876, p. 662 (revision Sterninæ); *Durnf. Ibis*, 1877, p. 201 (La Plata); *Salvin, Cat. Strickl. Coll.* p. 625 (1882); *White, P. Z. S.* 1882, p. 628 (Paraná); *Tacz. Orn. Pérou*, iii. p. 444 (1886); *Scl. & Hudson, Argent. Orn.* ii. p. 197 (1888).

Sterna maculata, *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 176 (1819: based on the "Hati manchado" of Azara); *id. Enc. Méthod.* i. p. 350 (1820); *Gray, Gen. B.* iii. p. 659 (1846).

Sterna argentea, *Neuwied, Beitr.* iv. p. 871 (1833); *Less. Hist. N. Mamm. et Ois.* ix. p. 520 (1837); *Gray, Gen. B.* iii. p. 659 (1846);

Hartl. Ind. Azara, p. 26 (1847); *Burm. Th. Bras.* iii. p. 542 (1856); *id. Reis. La Plata-St.* ii. p. 419 (1861); *Pelz. Orn. Bras.* pp. 325, 461 (1871).

Sternula argentea, *Boie, Isis*, 1844, p. 183; *Licht. Nomencl. Av.* p. 98 (1854: Brazil).

Sternula superciliaris, *Boie, Isis*, 1844, p. 183.

Adult in breeding-plumage. Like the preceding species, but larger and stouter; the black loral streak very narrow; the mantle and tail darker grey, with a slightly brown tinge on the inner secondaries; the four outer pairs of primaries chiefly dusky black, with comparatively narrow white margins to the inner webs of the two first, and very little white on the next two pairs inwards: bill stout and deep at the base, greenish yellow, with no black at the tip; tarsi and toes dull yellow or olivaceous. Total length only 9 inches (owing to the tail being short), culmen 1·5, wing 7·25, tail 3·25, depth of fork 1·3, tarsus 0·65, middle toe with claw 0·75. The sexes appear to be alike in plumage.

Adult after the autumn moult. Lores merely speckled with black; crown flecked with white; otherwise like the above.

Immature. Lores and forehead white; crown grey, with blackish streaks which become confluent round the eye and on the nape; primaries with a brownish tinge: bill yellow, with horn-coloured tip. Otherwise like the adult.

Young. Lores drab, a very marked whitish superciliary streak, forehead drab; crown darker, flecked with umber; a black patch from behind the eye to the nape; mantle grey, tinged with buff and barred with ash; tail mottled with ash, the ground-colour greyer than in any of the allied species: bill dull yellow, the maxilla nearly horn-colour; tarsi and toes dull yellow. Conspicuously darker than the young of *S. antillarum*.

Hab. Estuaries and rivers of South America from the Orinoco to the La Plata, ascending the Amazons and tributaries as far west as the river Huallaga. Eggs laid on sand-banks.

a. ♀ juv.; *b*, *c*. ♂ ♀ ad. sk.	Rupununi River, Brit. Guiana, Nov., Dec. (*H. Whitely*).	Salvin-Godman Coll.
d. Imm. sk.	Surinam, Dutch Guiana (*Dr. W. Kirke*).	H. Saunders Coll.
e. Ad. st.	Amazons.	
f. Imm. sk.	Amazons (*Wallace & Bates*).	Purchased.
g. ♂ imm. sk.	Amazons (*A. R. Wallace*).	Salvin-Godman Coll.
h. Ad. sk.	Tocantins River, Lower Amazons, Sept. (*A. R. W.*).	Salvin-Godman Coll.
i. ♂ ad. sk.	Santa Cruz, Upper Amazons, May (*E. Bartlett*).	H. Saunders Coll.
k. ♀ imm.; *l*. ♂ ad. sk.	Rio de Janeiro, July (*J. Young*).	H. Saunders Coll.
m, *n*. Ad. sk.	São Paulo, Brazil (*Natterer*).	Salvin-Godman Coll.
o. ♂ imm. sk.	Colonia, Rio de la Plata, Nov. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
p. Vix ad. sk.	Baradero, River Paraná, April.	H. Durnford, Esq. [C.].

31. Sterna lorata.

Sterna exilis * (*nec Tsch.*), *Scl. P. Z. S.* 1867, p. 336 & p. 344; *Scl. et Salv. P. Z. S.* 1871, p. 572 (revision); *iid. op. cit.* 1873, p. 147; *iid. Nomencl. Av. Neotr.* p. 147 (1873); *Saunders, P. Z. S.* 1876, p. 663 (revision); *id. op. cit.* 1882, p. 552 (Peru); *Tacz. Orn. Pérou*, iii. p. 445 (1886); *MacFarl. Ibis*, 1887, p. 204 (Callao Bay); *Berlepsch & Stolzm. P. Z. S.* 1892, p. 400.

Sterna lorata, *Phil. et Landb. Wiegm. Arch.* 1863, pt. i. p. 124.

Sterna loricata, *Gray, Hand-l. B.* iii. p. 121, no. 11068 (1871: *ex Ph. & Landb.*).

Adult in breeding-plumage. Forehead, and as far as the middle of the eyebrow, white; upper loral streak black, rather narrow, below which a parallel whitish streak along the cheeks; crown and nape black; mantle slate-grey; primaries with white shafts, the outer web of the outermost primary black, a smoke-grey line next the shaft on the inner web, and similar lines of a greyer colour on the succeeding primaries, inner portion of inner webs white; rump and tail-feathers slate-grey, the streamers paler; vent, flanks, abdomen, and breast smoke-grey, passing into white on the throat and chin; under wing-coverts white: bill very slender and prolonged in front of the angle of the genys, greenish yellow at the base, blackish anteriorly; tarsi and toes brownish, small, delicate, and the web between the middle and inner toe considerably indented. Total length 9·6 inches, culmen 1·45, wing 7·3, tail 4·1, depth of fork 2·2, tarsus 0·55, middle toe with claw 0·75.

Adult in winter. Like the above, with a little mottling of white about the lores and forehead.

Immature and young unknown to me.

Hab. Coast of Peru and of Northern Chile. Breeding-habits unknown.

a, b. ♂ ad. sk.	Callao Bay, Peru, Aug. (*Commr. MacFarlane, R.N.*).	H. Saunders Coll.
c, d. Ad. sk.	Paracas Bay, Peru, Oct. (*Adml. A. H. Markham*).	H. Saunders Coll.
e. Ad. sk.	Coast near Lima (*W. Nation*).	Salvin-Godman Coll.
f. Ad. st.	Chile.	Salvin-Godman Coll.

32. Sterna melanauchen.

Sterna melanauchen, *Temm. Pl. Col.* v. livr. 72, pl. 427 (1827); *Lesson, Man. d'Orn.* ii. p. 382 (1828: Moluccas); *id. Traité*, p. 622 (1831); *Gray, List B. Brit. Mus.*, Anseres, p. 179 (1844: Java); *Gray, Gen. B.* iii. p. 659 (1846); *Blyth, J. A. S. B.* xv. p. 373 (1846: Nicobar Is.); *Gould, B. Austral.* vii. pl. 28 (1848); *Reichenb. Natat.* tab. xx. fig. 282 (1848); *id. tom. cit., Novit.* vii. tab. 270. figs. 2255–6 (1850); *id. Vög. Neuholl.* Bd. ii. p. 9 & p. 346 (1850); *J. Macgilliv. Narr. Voy. Rattlesn.* ii. p. 358 (1852); *Licht. Nomencl. Av.* p. 98 (1854: Sumatra); *Schl. Handl. Dierk.* tab. viii. fig. 102 (1857); *Gray, P. Z. S.* 1858, p. 198; *id. op. cit.*

* As mentioned (*supra* p. 21), the *Sterna exilis* of Tschudi in the Neuchâtel Museum proved on examination to be a young *Hydrochelidon surinamensis*.

1859, p. 166 (New Caledonia); *id. Cat. Mamm. & B. New Guin.* p. 53 (1859); *id. P. Z. S.* 1861, p. 438 (Mysol); *Schl. Mus. P.-Bas*, Sternæ, p. 28 (1863); *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 256 (1863); *id. J. f. O.* 1864, p. 138; *Pelz. Reis. Novara, Vög.* p. 154 (1865: Nicobars); *Finsch, Neu-Guin.* p. 184 (1865: Batchian, Timor); *Gould, Handb. B. Austr.* ii. p. 400 (1865); *Finsch & Hartl. Faun. Centralpolyn.* p. 224 (1867); *Swinh. Ibis*, 1867, p. 230 (Amoy); *id. op. cit.* 1870, p. 367 (Hainan); *Marie, Act. Soc. Linn. Bordeaux*, xxvii. p. 328, no. 90 (1870: New Caledonia; cf. *Ibis*, 1877, p. 363); *Gray, Hand-l. B.* iii. p. 121, no. 11063 (1871); *Finsch, P. Z. S.* 1872, p. 113 (Pelew Is.); *Rosenb. Reist. Geelvinkb.* p. 9 (1875); *Layard, P. Z. S.* 1875, p. 440; *Finsch, Journ. Mus. Godeffr.* 1875, Hft. viii. p. 41 (Pelew Is.); *Masters, Pr. Linn. Soc. N. S. W.* 1876, p. 62; *Ramsay, t. c.* p. 78; *Saunders, P. Z. S.* 1876, p. 661 (revision Sterninæ); *Layard, Ibis*, 1876, p. 155 (Fiji Is.); *id. t. c.* p. 497 (Navigator Is.); *Sharpe, Journ. Linn. Soc.* xiii. p. 505 (1877); *Finsch, P. Z. S.* 1877, p. 770; *David & Oustal. Ois. Chine*, p. 526 (1877); *Layard, Ibis*, 1878, p. 280 (Coral islands to the N.E. of Madagascar); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *id. op. cit.* 1879, p. 302; *id. op. cit.* 1880, p. 102; *Sharpe, P. Z. S.* 1879, p. 354 (Labuan); *Rosenb. Malay. Archip.* pp. 220, 279, 504 (1878–79); *Layard, Ibis*, 1879, p. 365 (Noumea); *Legge, B. Ceylon*, p. 1020, note (1880: not yet in Ceylon); *Finsch, Ibis*, 1880, pp. 220, 332 (Marshall Is.); *id. tom. cit.* p. 431 (Gilbert Is.); *id. P. Z. S.* 1880, p. 577 (Caroline Is.); *id. Ibis*, 1881, pp. 113, 115 (E. Carolines); *id. tom. cit.* p. 540 (New Britain group); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 408 (1882); *id. Orn. Papuasia &c.* iii. p. 444 (1882); *Layard, Ibis*, 1882, p. 540 (New Caledonia, breeding); *Oates, B. Brit. Burm.* ii. p. 429 (1883); *Finsch, Vög. Südsee*, p. 21 (1884: New Britain); *Meyer, Zeitsch. f. ges. Orn.* i. pp. 197, 216 (Timor-laut); *Saunders, P. Z. S.* 1886, p. 337 (Diego Garcia); *Seebohm, Ibis*, 1887, p. 181 (Loo-choo Is); *Ramsay, Tab. List Austr. B.* p. 23 (1888); *North, Nests & Eggs Austr. B.* p. 356 (1889); *Tristr. Cat. Coll. B.* p. 9 (1889); *Everett, B. Borneo*, p. 211 (1889); *Salvad. Aggiunte Orn. Papuas.* p. 212 (1889); *Whitehead, Ibis*, 1890, p. 61 (Palawan); *Seebohm, B. Japan. Emp.* p. 297 (1890); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 302 (1890); *Lister, P. Z. S.* 1891, pp. 298, 300 (Phœnix group); *Wiglesw. Abh. zool. Mus. Dresd.* 1890–91, no. vi. p. 74 (1892: Polynesia); *De la Touche, Ibis*, 1892, p. 503 (Swatow, breeding).

Gygis melananchea [sic], *Boie, Isis*, 1844, p. 185.

Sterna marginata, *Blyth, J. A. S. Beng.* xv. p. 373 (1846); *id. Ibis*, 1865, p. 40 (young).

Onychoprion melanauchen, *Blyth, Cat. B. Mus. As. Soc.* p. 293 (1849); *Hartl. J. f. O.* 1855, p. 319 (Nicobar Is.); *Jerd. B. Ind.* iii. p. 844 (1864); *Blyth, Ibis*, 1865, p. 39; *Blair, op. cit.* 1866, p. 221; *Walden, P. Z. S.* 1866, p. 556 (Andaman Is.); *Beavan, Ibis*, 1867, p. 334 (Andaman Is.); *Swinhoe, Ibis*, 1867, p. 230; *id. P. Z. S.* 1871, p. 422 (Amoy); *Walden, Tr. Z. S.* viii. p. 104 (1872: Celebes); *Ball, Str. F.* 1873, p. 90 (Andaman & Nicobar Is.); *Walden, Ibis*, 1874, p. 149 (Andaman Is.); *Hume, Str. F.* ii. p. 73 & p. 483 (1874); *id. op. cit.* iv. p. 224 (1876); *Blyth & Wald. B. Burm.* p. 163 (1875).

Sternula melanauchen, *Bp. C. R.* xlii. p. 773 (1856); *Blas. J. f. O.* 1866, p. 74; *Hume, Str. F.* 1874, p. 319 (Andaman and Nicobar Is.); *Hume, Nests & Eggs Ind. B.* p. 656 (1875); *Heine & Reich. Nomencl. Mus. Hein.* p. 356 (1890).

Gygis sp. ?, *Hartl. Ibis*, 1864, p. 232; *id. Mus. Godeffroy, Cat.* i. p. 5 (1864).
Gygis decorata, *Hartl. Ibis*, 1864, p. 232; *id. Mus. Godeffroy, Cat.* i. p. 5 (1864).
Sterna hirundo ?, *Swinhoe, Ibis*, 1866, p. 135 (Amoy); *id. op. cit.* 1867, p. 320 (=S. melanauchen).
Onychoprion sumatranus, *Salvad. Ucc. Born.* p. 374 (1874); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 207 (1884: Java); *id. op. cit.* xlix. p. 420 (1889: Sumatra); *id. op. cit.* li. p. 415 (1892: Java).
Anous cinereus, *Layard, Ibis*, 1876, p. 156 (Coral islands, N.E. of Madagascar).
Sterna sumatrana, *Hume & Davison, Str. F.* vi. p. 493 (1878); *Hume, Str. F.* viii. p. 116 (1879, List); *id. op. cit.* p. 162 (Tonka, Malay P.); *Kelham, Ibis*, 1882, p. 202 (Malacca Straits).

Adult in breeding-plumage. Forehead and crown pure white; in front of the eye a black triangular patch, the apex of which does not reach the base of the bill; behind the eye on each side and enclosing the nape a band of black, broad and prolonged in the centre; neck white; mantle and rump delicate pearl-grey; shafts of all the primaries white; the outer primary with the outer web blackish, and the streak next the shaft on the inner web pale grey; the succeeding primaries palest grey next the shafts on the outer and the inner webs, the inner margins of all being pure white; tail long and forked, the middle tail-feathers pale pearl-grey, the rest white; underparts glossy white, with a beautiful roseate tint, as in *S. dougalli*: bill black; tarsi and toes dark brown to black. Total length 13·5 inches, culmen 1·6, wing 8·5, tail 6, depth of fork 3, tarsus 0·7, foot with middle toe 0·9. The male appears to have somewhat longer streamers than the female; otherwise the sexes are alike externally.

Adult in winter plumage. Differs only in having less black in front of the eye and on the nape.

Immature. Similar to the above, but there is a brownish tinge to the black on the nape; the wing-coverts are ash-grey, and a dark line runs along the carpal joint; the webs of the four outer primaries on both sides of the white shafts are dark ash-grey (the outermost black), and the outer webs of the tail-streamers are also ash-coloured.

Young. Forehead and crown buffish white, with black streaks which become confluent on the nape; feathers of the mantle and tail grey, barred with ash-brown and tipped with buff; primaries with a good deal of grey, which throws into strong relief their broad white inner margins: bill ochre-yellow, horn-coloured near the tip; toes yellowish brown.

Nestling. Above pale buff, spotted and streaked with black and umber-brown; beneath dull drab.

Hab. Islands to the N.E. of Madagascar, Amirante Group, Seychelles, Chagos (Diego Garcia) Group, Nicobar and Andaman Is., Tenasserim, Malayasia, and the whole Archipelago to New Guinea, North Australia, Loyalty Islands, Fiji Group, and Polynesia generally as far as the Friendly and Navigator Groups; Phœnix,

Caroline, Pelew, and Philippine Islands, the China Sea up to the Loo-choo Islands. Its range appears to be dependent in a great measure upon the existence of coral islands of a certain size, and is probably still more extensive.

a. ♂ ad. sk.	African I., Amirante Group, March (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
b. ♂ ad. sk.	Andaman Is., June (*R. C. Beavan*).	Tweeddale Coll.
c–g. ♂ ♀ ad. sk.	South Andaman Is., April and May (*R. G. W. Ramsay*).	Tweeddale Coll.
h–n. ♂ ♀ ad. sk.	Aberdeen, S. Andaman I., April and June (*W. Davison & F. A. de Roepstorf*).	Hume Coll.
o–r. ♂ ♀ ad. sk.	Corbine's Cove, S. Andaman Is., May (*W. Davison*).	Hume Coll.
s–x. ♂ ♀ ad. sk.	South Andaman I., May (*W. D.*).	Hume Coll.
y–d'. ♂ ♀ ad. sk.	Port Blair, S. Andaman I., May and July (*R. J. Wimberley*).	Hume Coll.
e'. ♂ ad. sk.	Port Blair, S. Andaman I., June (*R. J. W.*).	H. Saunders Coll.
f'. ♀ imm. sk.	Laynah Creek, Tenasserim, May (*W. Davison*).	Hume Coll.
g'. ♀ ad. sk.	Kyouk Phyoon, April (*J. Armstrong*).	Hume Coll.
h'. ♂ ad. sk.	Ton-ka, Malay Pen., May.	Hume Coll.
i', k'. ♂ ♀ ad. sk.	Malacca, Aug. (*S. Pinwill*).	Tweeddale Coll.
l'. Ad. sk.	Malacca, Aug. (*A. O. Maingay*).	Tweeddale Coll.
m', n'. Imm. sk.	Penaug (*Dr. Cantor*).	India Museum [P.].
o'. Pull.; *p'*. juv. sk.	Achin, N. Sumatra.	India Museum [P.].
q'. Ad. sk.	Sumatra (*A. R. Wallace*).	H. Saunders Coll.
r'. Ad. sk.	Labuan, N. Borneo.	Gov. Ussher [P.].
s', t'. Ad. sk.	Celebes.	J. Gould, Esq.
u'. Ad. sk.	Celebes.	H. Saunders Coll.
v'. ♀ ad. sk.	Mysol I., Jan.	H. Saunders Coll.
w', x'. Ad. sk.	N. New Guinea (*A. R. W.*).	Wallace Coll.
y'. Ad. sk.	D'Entrecasteaux Is.	Tweeddale Coll.
z', a''. Ad. sk.	North Australia (*Cockerell*).	Salvin-Godman Coll.
b''. ♀ ad. sk.	Claremont Is., Aug. (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
c''. ♀ ad. sk.; *d''*. ♂ ad. st.	Cairncross I., Oct. (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
e'', f''. Ad. sk.	Cape Upstart, Australia, April.	J. B. Jukes, Esq. [P.].
g''. ♀ ad. sk.	Ansevata, New Caledonia, Oct. (*E. L. Layard*).	Seebohm Coll.
h''. ♀ ad. sk.	Nairai, Fiji Is. (*Raymer*).	Voy. H.M.S. 'Herald.'
i''. ♂ ad. sk.	Ovalau reef, Fiji Is., Oct. (*E. L. Layard*).	Tweeddale Coll.
k''. ♂ ad. sk.	Tongatabu, Nov. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert' [P.].
l''. ♂ ad. sk.	Canton I., Phœnix Group, July.	J. J. Lister, Esq. [P.].
m''. Ad. sk.	Pelew Is.	J. Cohen [C.].

n''. Imm. sk.	Pelew Is	H. Saunders Coll.
o''. Ad. sk.	Loo-choo Islands, Aug. 1886.	Seebohm Coll.
p''–t''. Ad. sk.	Amoy, China, June and July (*R. S.*).	Swinhoe Coll.
u''. Ad. sk.	Amoy, June.	H. Saunders Coll.
v'', *w''*. Skeletons.	North Australia (*Macgillivray*).	Voy. H.M.S. 'Rattlesnake' [P.].

33. Sterna trudeauii.

Sterna trudeauii, *Audub. Orn. Biogr.* v. p. 125 (1839); *id. Synop.* p. 319 (1839); *id. B. N. Am.* 8vo, vii. p. 105, pl. 435 (1844); *Gray, Gen. B.* iii. p. 659 (1846); *Gay, Hist. Chile, Zool.* i. p. 484 (1847); *Baird, Cass., & Lawr. B. N. Amer.* p. 861 (1858); *Baird, Cat. N. Amer. B.* no. 687 (1859); *Schleg. Mus. P.-Bas,* Sternæ, p. 29 (1863: Brazil); *Gray, Hand-l. B.* iii. p. 118, no. 11027 (1871); *Scl. & Salv. P. Z. S.* 1871, p. 570 (revision); *Landbeck, Ann. Univ. Chil.* 1872, p. 515; *Coues, Key N. Amer. B.* p. 322 (1872); *id. Check-l.* no. 571 (1873); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 147 (1873); *Coues, B. N.-West,* p. 675 (1874); *Saunders, P. Z. S.* 1876, p. 660 (revision); *Durnf. Ibis,* 1877, p. 200 (La Plata); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Coues, Check-l.* 2nd ed. p. 124, no. 802 (1882); *id. Key N. Amer. B.* 2nd ed. p. 767 (1884); *Baird, Brew., & Ridgw. Water-B. N. Amer.* ii. p. 290 (1884); *Taczan. Orn. Pérou,* iii. p. 443 (1886: Arica); *Ridgw. Man. N. Amer. B.* p. 41 (1887); *Scl. & Hudson, Argent. Orn.* ii. p. 195 (1888); *Holland, Ibis,* 1890, p. 428; *id. op. cit.* 1892, p. 212 (Buenos Ayres, breeding); *Saunders, P. Z. S.* 1891, p. 373 (eggs, Argentina).

Gelochelidon trudeaui, *Boie, Isis,* 1844, p. 187.

Phaëtusa sellovii, *Licht. Nomencl. Av.* p. 98 (1854: Maldonado)*.

Thalasseus trudeaui, *Bp. C. R.* xlii. p. 772 (1856).

Sterna frobeenii, *Phil. & Landb. Wiegm. Arch.* 1863, p. 125 (Arica Bay); *iid. Cat. Av. Chil.* p. 49 (*fide Scl. et Salv.*); *Gray, Hand-l. B.* iii. p. 118, no. 11032 (1871); *Landb. An. Univ. Chil.* 1872, p. 515.

Phætusa trudeauii, *Blas. J. f. O.* 1866, p. 73 (revision).

? Phaethusa chloropoda, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 355 (1890: Chile).

Adult in breeding-plumage. Forehead, crown, and nape pure white; in front of the eye a black patch, and behind the eye to beyond the auricle a black streak about 1 inch long; neck and mantle pearl-grey; wings rather paler, the secondaries broadly edged with white, the upper primaries less so, the lower primaries dark grey on or near the margins of the inner webs, the "wedges" nearly white, the portions of the webs next the shafts pale grey, all the shafts white; rump nearly white; tail-feathers pale pearl-grey, the streamers lightest and silvery white on their outer webs; abdomen and breast grey, like the mantle; chin white; under wing-coverts dead white: bill yellow at its basal half, banded with black at the genys, and tipped with pale lemon-yellow; tarsi and toes dull orange, the hind toe long, free and somewhat high up. Total

* Type in Berlin Museum examined.

length 14 inches, culmen 1·8, wing 10·25, tail 5·75, depth of fork 2·8, tarsus 0·95, middle toe with claw 1·1.

Adult in winter. Like the above, except that the black of the orbits and auriculars is paler and little more than iron-grey. The primaries are then new, beautifully frosted, and have a very silvery appearance.

Immature. Very similar, but the centres of the long inner secondaries are ash-grey. At an earlier stage, the eye-streak is more developed and blacker; the webs of the outer primaries are brownish black on both sides of the shafts owing to the wear of the frosting; the underparts are white; and the bill is dull ochre-brown at the base, though yellow at the tip.

Young. The patch before and the streak behind the eye decidedly larger, and there is an indication of a greyish crescent on the nape; the crown greyish white, slightly mottled with brown, as are the feathers of the mantle; tail-feathers dark ash-grey with white margins: bill yellowish brown at the base, the rest blackish, with no yellow at the tip; tarsi and toes yellow.

In its immature and young plumage this Tern resembles *S. forsteri*, but the latter always shows more distinct coloration on the crown and nape, while its hind toe is decidedly shorter, and its bill has no yellow at the tip.

Hab. East coast of South America from Rio de Janeiro to Argentina; also on the West side, in Chile, up to Arica (which was formerly in Peru). Accidental in the United States (Long Island and New Jersey [?]).

a. ♀ imm. sk.	Rio de Janeiro, Aug. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
b, c. ♂ ♀ ad. sk.	Santa Catharina, S. Brazil, Aug. 1883 (*H. M. Harrison, R.N.*).	H. Saunders Coll.
d, e. Vix ad.; *f, g.* Imm. sk.	Santa Catharina, S. Brazil (*H. Rogers*).	H. Saunders Coll.
h, i. Vix ad. sk.	Santa Catharina, S. Brazil (*H. Rogers*).	Salvin-Godman Coll.
k. ♀ juv. sk.	Maldonado, Uruguay, Jan. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
l. Ad. sk.	Punta Lara, Argentina, Oct. (*H. D.*).	H. Durnford Coll.
m. ♀ ad. sk.	Buenos Ayres Prov., Sept. (*H. D.*).	H. Durnford Coll.
n. Ad. sk.	Buenos Ayres Prov.	Alan Peel, Esq. [C.].
o. ♂ ad. sk.	Buenos Ayres Prov., Nov. (*Burmeister*).	Salvin-Godman Coll.
p, q. ♂ ad. sk.	Ajó, B. A. Prov. (*E. Gibson*).	H. Saunders Coll.
r. Ad. st.	Chile (*Bridges*).	Purchased.
s. Ad. st.	Chile (*Cuming*).	Purchased.

7. NÆNIA.

	Type.
Nænia, *Boie, Isis*, 1844, p. 189	N. inca.
Sternolophota, *Lesson*, teste *Gray, Hand-l. B.* iii. p. 123 (1871)	N. inca.
Larosterna, *Blyth, Cat. B. Mus. As. Soc.* p. 293 (1849)	N. inca.
Inca, *Jard. Contrib. Orn.* p. 33 (1850)	N. inca.

Range. Coasts of Peru and Chile.

1. Nænia inca.

Sterna stolida, *Lesson, Voy. 'Coquille,'* i. p. 244 (1826: Concepcion Bay, Chile).

Sterna inca, *Lesson, Voy. 'Coquille,'* p. 731, no. 145, *Atlas*, pl. 47 (1826: Peru); *id. Man. d'Orn.* ii. p. 383 (1828); *id. Traité*, p. 622 (1831); *id. H. N. Mamm. et Ois.* ix. p. 518, pl. 47. fig. 1 (1837); *Tschudi & Cab. Faun. Peruan., Aves*, pp. 53, 305 (1846); *Reichenb. Natat.* tab. xx. fig. 811 (1848).

Nænia inca, *Boie, Isis*, 1844, p. 189 (type of genus); *Reichenb. Av. Syst. Nat., Longip.* p. v (1852); *Bp. C. R.* xlii. p. 773 (1856); *Scl. & Salv. P. Z. S.* 1871, p. 567 (revision Neotrop. Laridæ); *id. Nomencl. Av. Neotrop.* p. 147 (1873); *Saunders, P. Z. S.* 1876, p. 667 (revision); *id. Journ. Linn. Soc.* xiv. p. 404 (1878: distribution); *Salvin, Cat. Strickl. Coll.* p. 626 (1882); *Saunders, P. Z. S.* 1882, p. 520 (Callao); *Taczan. Orn. Pérou*, iii. p. 446 (1886); *MacFarl. Ibis*, 1887, p. 204 (Callao); *Tristr. Cat. Coll. B.* p. 9 (1889); *Hartert, Katal. Vogelsamml. Senckenb.* p. 238 (1891); *Berlepsch & Stolzm. P. Z. S.* 1892, p. 400.

Noddi inca, *Gay, Hist. Chile, Zool.* i. p. 486 (1847).

Anous inca, *Gray, List B. Brit. Mus.*, Anseres, p. 181 (1844); *id. Gen. Birds*, iii. p. 661 (1846); *Licht. Nomencl. Av.* p. 97 (1854: Chile); *Pelz. Reis. Novara, Vög.* p. 156 (1865: Chile); *Blas. J. f. O.* 1866, p. 83; *Gray, Hand-l. B.* iii. p. 123, no. 11091 (1871: Chile); *Cunningh. Str. Magell.* p. 404 (1871: Coquimbo); *Pelz. Verh. z.-b. Ges. Wien*, 1873, p. 159 (Callao Bay).

Larosterna inca, *Blyth, Cat. B. Mus. As. Soc.* p. 293 (1849: type of genus).

Inca mystacalis, *Jard. Contrib. Orn.* p. 33 (1850: type of genus); *Cassin, U.S. Expl. Exp.* p. 391 (1858: Callao).

Adult male in breeding-plumage. Forehead and crown dark bluish slate-colour; from the base of the maxilla, below the eye, a white moustache, prolonged to the auricles and thence detached in curling feathers, some of them 2 inches long; mantle a mere shade lighter than the crown; most of the secondaries broadly tipped with white; primaries brownish black, paler towards the margins of the inner webs, the four upper ones greyer and edged with white; central tail-feathers like the mantle, the lateral ones brownish like the primaries; underparts like the upper, but paler on the under wing-coverts and on the throat: bill strong, the maxilla decurved, bright blood-red; tarsi, toes, and webs crimson, the latter well developed. Total length 16 inches, culmen 1·9, wing 11·2, tail 5·8, depth of fork 1·4, tarsus 0·9, middle toe with claw 1·2. So far as is known, there is no difference in the plumage of the sexes. I am not aware of any seasonal change.

Immature. Similar to the preceding, but with a much browner tinge throughout, the moustaches less developed and mixed with ash-brown: bill and feet paler in colour.

Young. Lower forehead and lores ash-brown, crown and nape rather lighter, orbital region darker; below the eye a faint grey line indicating the moustache, the detached feathers of which are grey with white lower edges and only about 1/3 inch long; rest of plumage brownish grey, paler on the throat and chin: bill reddish brown, brighter towards the tip; tarsi and toes livid.

Hab. Coasts of Peru and Chile. Nidification unknown and probably peculiar, as the shores frequented are high, rocky and caverned.

a. Ad. st.; *b*. Ad. sk.	Chile coast.	Capt. Lord Byron, R.N. [P.].
c. ♂ ad. sk.	Chile.	Salvin-Godman Coll.
d, *e*. Ad. sk.	Valparaiso, Chile.	Capt. W. S. Brett [P.].
f, *g*. Ad. sk.	Chincha Islands, Peru, Mar.–Apr. (*H. S.*).	H. Saunders Coll.
h. ♂ ad.; *i*. ♂ imm. sk.	Callao Bay, Peru, Aug. (*Adml. Markham*).	H. Saunders Coll.
k. Ad. sk.	Guayaquil.	Capt. Kellett & Lieut. Wood, R.N. [P.].

8. PROCELSTERNA.

Type.

Procelsterna, *Lafresn. Mag. de Zool.* (2), *Ois.* pl. 29, cum descrip. (1842) ..... P. cærulea.

Range. Pacific, from San Ambrosio to Australia, and northwards to the Fanning group.

Key to the Species.

a. Smaller, darker grey above, underparts pale grey .. *cærulea*, p. 133.
b. Larger, paler grey above, white below ..... *cinerea*, p. 135.

1. Procelsterna cærulea.

Sterna cærulea, *F. D. Bennett, Narr. Whaling-Voy.* i. p. 385, and ii. p. 248 (1840: Christmas I., Fanning group).
"Sterne cendré," *Néboux, Rev. Zool.* 1840, p. 291.
Sterna teretirostris, *Lafresnaye, Rev. Zool.* 1841, p. 242.
Procelsterna tereticollis, *Lafresnaye, Mag. de Zool.* (2), *Ois.* pl. 29, cum descrip. (1842: type of *Procelsterna*).
Stolida cinerea, *Néboux, Voy. 'Vénus,' Atlas*, pl. 9 (1846: Pacific, N. of Equator).
Anous parvulus, *Gould, P. Z. S.* 1845, p. 104 (Christmas Island, *Bennett*); *Hartl. Wiegm. Arch.* 1852, i. p. 127; *id. J. f. O.* 1854, p. 170; *Cassin, U.S. Expl. Exp., Birds*, p. 393 (1858: Honden Island, Low Archipelago); *Gray, Cat B. Trop Is. Pacific*, p. 60 (1859).
Anous tereticollis, *Gray, Gen. B.* iii. p. 661 (1846).
Megalopterus plumbeus, *Peale, U.S. Expl. Exp.* p. 285 (1848: Honden Island).

Anous tephrodes, *Reichenb. Natat., Novit.* x. tab. cclxxii. fig. 2271 (1850).

Anous cinereus, *Prévost et Des Murs, Voy. Vénus*, v. p. 276 (1855); *Finsch & Hartl. Faun. Centralpolyn.* p. 239, tab. iv. figs. 4 & 5 (eggs), tab. xiii. fig. 4, bird (1867: Phœnix group).

Procelsterna cinerea, *Bp. C. R.* xlii. p. 773 (1856).

Anous cinerea, *Gray, Hand-l. B.* iii. p. 123, no. 11089 (1871).

Anous cæruleus, *Saunders, P. Z. S.* 1876, p. 671 (Christmas I., &c.); *id. op. cit.* 1878, p. 211 (correction synon.); *Sharpe, t. c.* p. 272 (Ellice Is.); *id. Phil. Tr.* clxviii. p. 469 (1879); *Salvin, P. Z. S.* 1879, p. 128 (Samoa); *Saund. J. Linn. Soc.* xiv. p. 404 (1879: distribution); *Tristr. Ibis*, 1881, p. 252 (Marquesas); *id. op. cit.* 1883, p. 48 (Fanning group); *MacFarlane, Ibis*, 1887, p. 213 (Christmas I.); *Tristr. Cat. Coll. B.* p. 10 (1889); *Lister, P. Z. S.* 1891, p. 296, p. 300 (Phœnix group); *Wiglesw. Abh. zool. Mus. Dresd.* 1890–91, no. vi. p. 77 (1892); *Stone, Pr. Philad. Acad.* 1894, pp. 115–118.

Adult in breeding-plumage. Round the eye a narrow black ring; forehead and throat pale grey; crown and nape darker grey; remaining upper parts smoke-grey, the shafts of primaries black; secondaries conspicuously bordered with white; underparts grey, like the crown: bill blackish; tarsi and toes livid brown, webs lemon-yellow, hind toe very small. Total length 9·7 inches, culmen 1·2, wing 7·4, tail 4, depth of fork 1·5, tarsus 0·9, middle toe with claw 1·2. Sexes apparently alike in plumage.

Adult in winter or after moult. Similar to the above; perhaps a little paler in tint, but statistics are wanting. All I can say is—that an adult female obtained at Raiatea, Society Islands, in November is paler than other specimens.

Immature. Similar, with a slightly dark line along the carpal joint.

Young. Similar, but with a brownish tinge on the crown and faint indications of bars on the feathers of the mantle, which are rather darker than in the adult; underparts ash-grey; under wing-coverts smoke-grey; tarsi dull brown.

Hab. Central Polynesia :—Paumotu or Low Archipelago, the Marquesas, the Society to the Ellice Islands, the Phœnix group, and the Fannings (Christmas I.), a little north of the Equator.

a, *b*. Ad. sk.	Ellice Islands.	Rev. J. Whitmee [C.].
c. ♀ ad. sk.	Phœnix Islands, July.	J. J. Lister, Esq. [P].
d. Ad. sk.	Tutuila, Samoan Islands.	Rev. T. Powell [P.].
e. Ad. sk.	Society Islands.	Hume Coll.
f. ♀ ad. sk.	Raiatea, Society Islands, Nov. 18th (*J. Young*).	H. Saunders Coll.
g. Juv. sk.	Marquesas Islands, March (*Canon Tristram*).	H. Saunders Coll.
h. Imm. sk.	Christmas I., Fanning group Oct. (*Commr. J. R. H. MacFarlane*).	H. Saunders Coll.

2. Procelsterna cinerea.

Pelecanopus pelecanoides, *Gray* (*nec King*), *List B. Brit. Mus.*, Anseres, p. 180 (1844: Australia, Sir T. Mitchell).

Anous cinereus, *Gould, P. Z. S.* 1845, p. 104 (N.E. Australia); *id. B. Australia*, vii. pl. 37 (1848: Norfolk I. and N.E. coast Australia); *Bennett, Gath. Nat. Austr.* p. 241 (1860: Nepean Is., breeds); *Krefft, Ibis*, 1862, p. 192 (Brampton Shoals, 37° S., 173° W.); *Saunders, P. Z. S.* 1878, p. 212; *id. Journ. Linn. Soc.* xiv. p. 404 (1878); *Sharpe, P. Z. S.* 1878, p. 272; *id. Phil. Trans.* clxviii. p. 469 (1879); *id. P. Z. S.* 1881, p. 16 (San Ambrosio I., S. Pacific); *Ramsay, Pr. Linn. Soc. N.S.W.* 1878, p. 139 (Union group); *id. op. cit.* 1883, p. 89; *Salvin, Cat. Strickl. Coll.* p. 627 (1882); *Crowfoot, Ibis*, 1885, p. 265 (Norfolk I., breeds); *Ramsay, Pr. Linn. Soc. N. S. W.* 1888, p. 678 (Lord Howe I.); *id. Tab. List Austr. B.* p. 23, no. 708, & p. 38 (1888); *Buller, 2nd ed. B. N. Zeal.* ii. p. 78 (1888); *North, Nests & Eggs Austr. B.* p. 376, pl. xxi. fig. 6 (1889: Lord Howe & Philip Is.); *Etheridge, Zool. Ld. Howe I.* p. 17 (1889); *Tristr. Cat. Coll. B.* p. 10 (1889: St. Ambrose I.); *Wiglesw. Abhandl. zool. Mus. Dresden*, 1890-91, no. vi. p. 78 (1892); *Stone, Pr. Philad. Acad.* 1894, pp. 115–118.

Procelsterna albivitta, *Bp. C. R.* xlii. p. 773 (1856); *Gould, Handb. B. Austr.* ii. p. 420 (1865).

Sterna cinerea, *Schlegel, Mus. P.-B.*, Sternæ, p. 38 (1863: Australia).

Anous albivitta, *Gray, Hand-l. B.* iii. p. 123, no. 11090 (1871).

Anous albivittatus, *Finsch, P. Z. S.* 1877, p. 776 (Eua, Friendly group).

Anous cæruleus (partim), *Saunders, P. Z. S.* 1876, p. 671.

Anous cæruleus, *Ramsay, Proc. Linn. Soc. N. S. W.* 1878, p. 202, no. 695; *Tristram, Ibis*, 1881, p. 177 (San Ambrosio I.).

Adult in breeding-plumage. Like, but decidedly larger than, the preceding species; much paler on the upper surface; well-defined greyish-white "wedges" to the inner webs of the three outer primaries, the shafts brown; belly and breast greyish white; under wing-coverts pure white: bill black; "iris blackish blue" (*Krefft*): tarsi and toes reddish black, webs lemon-yellow. Total length 11 inches, culmen 1·25, wing 8·5, tail 4·5, depth of fork 2, tarsus 1, middle toe with claw 1·3.

Adult in winter. Probably similar.

Immature. Like the above, but with a brownish tinge on the mantle and tail; duller white wedges to the primaries; less white on the edges of the secondaries: bill, tarsi, and toes brownish black.

Hab. Australian and New Zealand Seas, Lord Howe, Norfolk and neighbouring islands, and Kermadec group; also the islet of San Ambrosio, which is nearest to the coast of Chile, but lies outside the cold Antarctic current.

a, b. Ad. st.	Australia.	Sir Thomas Mitchell [P.].
c. Ad. sk.	Australia (*T. C. Eyton Coll., ex Mus. Zool. Soc.*).	H. Saunders Coll.
d. ♂ ad. sk.	Lord Howe Island, September 1887 (*Sydney Mus.*).	Seebohm Coll.
e. Ad. sk.	Norfolk Island (*P. Metcalfe*).	H. Saunders Coll.

f. Ad. sk.	Norfolk Island.	E. Saunders [C.].
g. ♂ imm. sk.	Raoul or Sunday I., Kermadec Is., July 1854 (*J. Macgillivray*)	Voy. H.M.S. 'Herald.'
h. Ad. sk.	Eua, Friendly Is. (*Hübner, Mus. Godeffroy*).	H. Saunders Coll.
i, *k*. ♂ ♀ ad. sk.	San Ambrosio Id., July (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'

9. ANOUS.

	Type.
Anous, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 139 (1826: *ex Leach MSS.*)	A. stolidus.
Megalopterus, *Boie, Isis*, 1826, p. 980; *cf. id. op. cit.* 1844, pp. 187–188.....	A. stolidus.
Stolida, *Lesson, Traité d'Orn.* p. 620 (1831)	A. stolidus.
Gavia, *Swains. Classif. B.* ii. p. 373 (1837)	A. stolidus.
Aganaphron, *Gloger, Hand- u. Hilfsb.* p. 463 (1842).	"The Noddies."

Range. Tropical and juxta-tropical seas.

Key to the Species.

a. Larger; bill stouter, crown and forehead lavender-grey	*stolidus*, p. 136.
b. Smaller; bill more slender, head and entire upper parts sooty black	*galapagensis*, p. 143.

1. Anous stolidus.

The Noddy, *Catesby, Nat. Hist. Carolina*, i. p. 88, cum fig. 88 (1731).

La Mouette brune, *Briss. Orn.* vi. p. 199, pl. xviii. fig. 2 (1760).

Sterna stolida, *Linn. Amœn. Acad.* iv. p. 240 (1759); *id. Syst. Nat.* i. p. 227 (1766); *Forster, Ind. Zool.* p. 42 (1781); *Gm. Syst. Nat.* i. p. 604 (1788); *Bonn. Enc. Méth.* i. p. 91 (1790); *Lath. Ind. Orn.* ii. p. 805 (1790); *Licht. Cat. Rerum nat. rar.* p. 27 (1793); *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 178 (1819); *Carmichael, Tr. Linn. Soc.* xii. p. 497 (1819: Tristan da Cunha, breeding); *Werner, Atlas, Palmipèdes*, pl. 9 (1828); *Bp. Ann. Lyc. N. Y.* ii. p. 356 (1828); *Audub. B. Amer.* pl. 275 (circa 1826); *Lesson, Traité*, p. 620 (1831); *Neuwied, Beitr. Naturg. Bras.* iv. p. 874 (1833); *Kittl. Kupfert.* iii. p. 27, tab. 36. fig. 2 (1833); *Meyen, Beitr.* p. 239 (1834); *Nutt. Man. Orn.* ii. p. 285 (1834); *Thomps. P. Z. S.* 1835, p. 84 (off Ireland); *Jenyns, Man. Brit. Verteb.* p. 270 (1835); *Audub. Orn. Biogr.* iii. p. 516 (1835), v. p. 642 (1839); *Gould, B. Eur.* v. pl. 421 (1837); *Audub. Synop.* p. 322 (1839); *D'Orbign. in Sagra's Hist. Nat. Cuba*, p. 213 (1839); *F. D. Bennett, Whaling Voy.* i. p. 161 (Society Is.); *Temm. Man. d'Orn.* 2me éd. 4me pte, p. 461 (1840); *Schinz, Europ. Faun.* p. 377 (1840); *Audub. B. N. Amer.* 8vo ed. vii. p. 123, pl. 440 (1844); *Schl. Rev. Crit.* p. cxxxi (1844); *Yarrell, Brit. B.* p. 531 (1845); *Degl. Orn. Eur.* ii. p. 335 (1849); *Thomps. B. Irel.* iii. p. 308 (1851); *Burm. Th. Bras.* iii. p. 453 (1856: Fernando Noronha); *Hewits. Eggs Brit. B.* ii. p. 486, pl. 134. fig. 3 (1856); *Meyer*,

Brit. B. vii. p. 113, pl. 298 (1857); *Kittlitz, Denkwürdig. Reise*, ii. p. 64 (1858: Kushai Id.); *Schl. Mus. P.-Bas*, Sternæ, p. 36 (1863); *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 256 (1863); *id. J. f. O.* 1864, p. 138; *Schl. P. Z. S.* 1866, p. 426; *Schl. & Poll. Faun. Madag., Ois.* p. 149 (1868); *Harting, Handb. Brit. B.* p. 170 (1872); *Rosenb. Malay. Archip.* p. 407 (1878–79: Ternate); *Seebohm, Hist. Brit. B.* iii. p. 294, pl. 49 (1885); *id. B. Japan. Emp.* p. 300 (1890).

Le Petit Fouquet des Philippines, *Sonn. Voy. Nouv. Guin.* p. 125, pl. 85 (1776).

Le Noddi, *Buff. Hist. Nat. Ois.* viii. p. 461, pl. 37 (1781).

Noddi, *Lath. Gen. Syn.* iii. pt. 2, p. 354 (1785).

Hirondelle-de-mer brune de la Louisiane, *Daubent. Pl. Enl.* pl. 997 (1786).

Sterna pileata, *Scop. Del. Faun. et Flor. Insubr.* ii. p. 92, no. 73 (1786: *ex Sonn.*).

Sterna philippina, *Lath. Ind. Orn.* ii. p. 805 (1790).

Sterna senex, *Leach, in Tuckey's Exped. Congo*, App. p. 408 (1818: obtained by Cranch).

Anoüs niger, *Steph., in Shaw's Gen. Zool.* xiii. pt. 1, p. 140, pl. 17 (1825: type of genus, *ex Leach, MSS.*).

Megalopterus tenuirostris, *Boie, Isis*, 1826, p. 980 (*nec Temm.*; *cf. Boie, Isis*, 1844, pp. 187–188); *Rüpp. Syst. Uebers.* p. 140 (1845: Red Sea).

Sterna unicolor, *Nordm. in Erman's Verz. v. Thier. u. Pfl.* p. 17 (1835: South Seas: in Berlin Mus.).

Gavia leucoceps, *Swains. Classif. B.* ii. p. 373 (1837: *ex Daubenton*).

Megalopterus stolidus, *Bp. Comp. List B. Eur. & N. Amer.* p. 61 (1838); *Keys. u. Blas. Wirb. Eur.* p. xcviii and p. 248 (1840); *Macgill. Man. Brit. Orn.* pt. ii. p. 236 (1842); *id. Brit. B.* v. p. 672 (1852).

Anous stolidus, *Gray, List Gen. B.* p. 100 (1841); *id. List B. Brit. Mus.*, Anseres, p. 180 (1844); *id. Gen. B.* iii. p. 661 (1846); *Boie, Isis*, 1844, p. 188; *Gould, B. Australia*, vii. pl. 34 (1848); *Blyth, Cat. B. Mus. As. Soc.* p. 293 (1849); *Reichenb. Syst. Nat.* tab. iv. (1850), and *Av. Syst. Nat., Longip.* p. v (1852); *id. Vög. Neuholl.* ii. p. 11 & p. 348 (1850); *Licht. Nomencl. Av.* p. 97 (1854); *Bp. C. R.* xli. p. 1112 (1855: Marquesas); *id. op. cit.* xlii. p. 773 (1856); *Baird, Cass., & Lawr. B. N. Amer.* p. 865 (1858); *Cass. U.S. Expl. Exp.* p. 391 (1858); *Scl. & Salvin, Ibis*, 1859, p. 233 (Pacific coast Centr. Amer.); *Gray, Cat. B. Trop. Is. Pacific*, p. 59 (1859); *Coues, Pr. Philad. Acad.* 1862, p. 557 (critical); *Gray, Cat. Brit. B.* p. 244 (1863); *Swinh. P. Z. S.* 1863, p. 329; *id. Ibis*, 1863, p. 430 (Formosa); *Salvin, Ibis*, 1864, p. 392 (Brit. Honduras); *Jerdon, B. India*, iii. p. 845 (1864); *Lawr. Ann. Lyc. N. Y.* viii. p. 105 (1864: Sombrero I.); *Pelz. Reis. Novara, Vög.* p. 155 (1865); *Gould, Handb. B. Austr.* ii. p. 413 (1865); *Finsch & Hartl. Faun. Centralpolyn.* p. 234 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 445 (1867); *Dole, Pr. Bost. Soc. N. H.* 1869, p. 307 (Sandwich Is.); *Sundev. K. Vet.-Akad. Stockh.* 1869, p. 590 (St. Barthol. I., W. Ind.); *Melliss, Ibis*, 1870, p. 106 (St. Helena); *Finsch & Hartl. Vög. Ostafr.* p. 835 (1870); *Swinh. P. Z. S.* 1870, p. 603 (Loo-choo Is.); *id. op. cit.* 1871, p. 422; *Pelz. Orn. Bras.* p. 461 (1871: Fernando Noronha); *Scl. & Salvin, P. Z. S.* 1871, p. 566 (revision); *Gray, Hand-l. B.* iii. p. 123, no. 11084 (1871); *Coues, Key N. Amer. B.* p. 323 (1872); *Finsch & Hartl. P. Z. S.* 1872, p. 113 (Pelew Is.); *Scl.*

& Salvin, Nomencl. Av. Neotr. p. 147 (1873); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1459 (1873); *Ball, Str. F.* 1873, p. 90 (Andaman Is.); *Hume, op. cit.* 1874, p. 320; *Salvad. Ucc. Borneo*, p. 379 (1874); *Coues, B. N.-West*, p. 710 (1874); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 318 (1874: Isabella Id., N.W. Mexico); *Finsch, Journ. Mus. Godeffr.* Heft viii. p. 42 (1875); *id. op. cit.* xii. p. 40 (1876: Pelew I.); *Legge, Str. F.* 1876, p. 247 (Ceylon); *Hume, t. c.* p. 478 (Laccadive Is., breeding in February); *Layard, P. Z. S.* 1876, p. 497 (Levuka); *Saunders, P. Z. S.* 1876, p. 669 (revision Sterninæ); *Gundl. Orn. Cuba*, p. 311 (1876); *Tristr. Ibis*, 1876, p. 266 (New Hebrides); *Butl. Str. F.* 1877, p. 301 (Mekran coast); *Streets, Bull. U.S Nat. Mus.* vii. p. 28 (1877: Fanning Is.); *Sharpe, Ibis*, 1877, p. 25 (Sarawak); *E. P. Ramsay, P. Z. S.* 1877, p. 348 (Queensland); *Finsch, t. c.* p. 587 (Niuafou); *id. t. c.* p. 781 (Ponapé); *Walden, Tr. Z. S.* ix. p. 244 (1877: Philippines); *Hartl. Vög. Madag.* p. 391 (1877); *Lenz, J.f. O.* 1877, p. 381 (Sanghir Is.); *Scl. P. Z. S.* 1877, p. 557 (Admiralty Is.); *Masters, Pr. Linn. Soc. N. S. W.* 1877, p. 63 (Torres Strs.); *David & Oustal. Ois. Chine*, p. 529 (1877); *Saunders, P. Z. S.* 1877, p. 797 (Voy. 'Challenger'); *id. Journ. Linn. Soc.* xiv. p. 405 (1878: distribution); *id. Voy. 'Challenger,'* ii. *Birds*, p. 137 (1881); *Oustal. Bull. Soc. Philom.* 1878, p. 197 (Seychelles); *Sharpe, Phil. Tr.* clxviii. pp. 466–467 (Rodriguez); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *Sharpe, P. Z. S.* 1878, p. 273 (Ellice Is.); *Penrose, Ibis*, 1879, p. 280 (Ascension Id., breeding); *Moseley, Nat. on the 'Challenger,'* p. 68 (1879: St. Paul's Rocks); *Hume, Str. F.* viii. p. 72 (1879: Malacca); *Finsch, P. Z. S.* 1879, p. 15 (New Britain); *id. op. cit.* 1880, p. 577 (Caroline Is.); *id. Ibis*, 1880, p. 332 (Marshall Is.); *id. t. c.* p. 431 (Gilbert Is.); *id. J. f. O.* 1880, p. 307 (Kushai Id.); *Legge, B. Ceylon*, p. 1043 (1880); *Cory, B. Bahamas*, p. 216 (1880); *id.* ed. 1890, p. 216 (breeds); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *W. Ramsay, Tweedd. Mem.* p. 660 (1881); *Finsch, Ibis*, 1881, p. 105 & p. 109 (Kushai Id., breeding); *id. t. c.* pp. 113 & 115 (Ponapé, breeding); *id. t. c.* p. 540 (New Britain); *Maynard, B. East. N. Amer.* p. 481 (1881: Florida); *Tristr. Ibis*, 1881, p. 252 (Marquesas); *Milne-Edwards & Grandidier, H. N. Madag., Ois.* p. 663, pls. 289 & 290 (1882: osteology); *Zeledon, Cat. Aves Costa Rica*, p. 36 (1882); *Salvad. Orn. Papuasia &c.* iii. p. 453 (1882); *Coues, Check-l. N. Amer. B.* p. 124 (1882); *Grisdale, Ibis*, 1882, p. 493 (Montserrat, W.I.); *Salvin, Cat. Strickl. Coll.* p. 626 (1882); *Ramsay, Pr. Linn. Soc. N. S. W.* 1883, p. 89 (Lord Howe's Id.); *Oates, B. Brit. Burm.* ii. p. 434 (1883); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 325 (1884); *Cory, B. S. Domingo*, p. 182 (1884); *Finsch, Vög. Südsee*, p. 51 (1884); *Sharpe, Rep. Voy. 'Alert,'* p. 27 (1884: Torres Strs.); *Coues, Key N. Amer. B.* 2nd ed. p. 771 (1884); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 207 (1884: Java); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 567 (1884); *J. Murray, Narr. 'Challenger,'* p. 204 (1885: St. Paul's Rocks); *Crowfoot, Ibis*, 1885, p. 264 (Norfolk Id. group); *A. O. U. Check-list*, p. 96 (1886); *Wells, Pr. U.S. Nat. Mus.* ix. p. 632 (1886: Grenada, W.I., breeds); *Saunders, P. Z. S.* 1886, p. 337 (Diego Garcia); *Finsch, Ornis*, 1887, p. 372, pl. ii. (eggs, same loc.); *MacFarlane, Ibis*, 1887, p. 210 (Sala y Gomez Id., 26° S., breeding), p. 211 (Easter Id. and Ducie Id.), p. 212 (Pitcairn Id.), p. 213 (Fanning Group); *Ridgw. Man. N. Amer. B.* p. 48 (1887); *Ramsay, Tab. List Austr. B.* p. 23 and

p. 38 (1888); *W. Blasius, Ornis*, 1888, p. 636 (Gt. Sanghir Id.); *E. Newton, Tr. Norw. Soc.* iv. p. 553 (1888: Mascarene Is.); *Everett, B. Borneo*, p. 211 (1889); *Saunders, Man. Brit. B.* p. 639 (1889); *Cory, B. West Indies*, p. 291 (1889); *North, Nests & Eggs Austr. B.* p. 358 & p. 375, pl. xxi. fig. 2 (1889); *Etheridge, Zool. Ld. Howe Id.* p. 17 (1889); *Tristr. Cat. Coll. B.* p. 10 (1889); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlix. p. 420 (1889: Sumatra); *Ridgw. Pr. U.S. Nat. Mus.* xii. p. 116, no. 43 (1890: Chatham I., Galapagos); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 315 (1890); *J. B. Young, Ibis*, 1891, p. 146 (Morant Cays, breeding); *Hartert, Kat. Vogelsammi. Senckenb.* p. 238 (1891); *Lister, P. Z. S.* 1891, p. 296 (Phœnix Group); *A. J. Campbell, C. R.* ii. *Congr. Orn. Intern.* ii. pp. 157–158, pl. of nesting-place, Houtman's Abrolhos (1892); *Cory, Cat. B. West Ind.* p. 82 (1892); *Sibree, Ibis*, 1892, p. 273 (Madagascar); *Wiglesw. Abh. zool. Mus. Dresd.* 1890–91, no. vi. p. 76 (1892: Polynesia); *Rothschild, Arif. Laysan*, i. p. 41, cum tab. (1893); *Lilford, Col. Fig. Br. B.* pt. xxix. (1894); *W. Stone, Pr. Philad. Acad.* 1894, pp. 115–116 (critical).

The Noddy Tern, *Yarrell, Brit. B.* iii. p. 417 (1843).

Thalasseus philippina, *Boie, Isis*, 1844, p. 182 (*ex Lath.*).

Anous unicolor, *Boie, Isis*, 1844, p. 188; *Gray, Gen. B.* iii. p. 661 (1846).

Anous senex, *Boie, Isis*, 1844, p. 185 (*ex Leach*); *Gray, Gen. B.* iii. p. 661 (1846).

Anous leucoceps, *Gray, Gen. B.* iii. p. 661 (1846).

Anous pileatus, *Gray, Gen. B.* iii. p. 661 (1846); *Bp. C. R.* xlii. p. 773 (1856); *Pelz. Reis Novara, Vög.* p. 155 & p. 162 (1865).

Anous tenuirostris, *Heugl. Syst. Uebers.* p. 71 (1856); *id. Ibis*, 1859, p. 351 (Aden, &c.); *id. in Peterm. Mitth.* 1861, p. 29; *K. v. Warthausen, Ibis*, 1860, p. 128 (Somali Coast).

Anous rousseaui, *Hartl. Beitr. Orn. Madagascar*, p. 86 (1861).

Anous frater, *Coues, Pr. Ac. Philad.* 1862, p. 558 (South Pacific, *Wilkes*).

? Anous melanogenys, *Léot. Ois. Trinid.* p. 547 (1866).

Anous senex, *Gray, Hand-l. B.* iii. p. 123, no. 11086 (1871).

Anous superciliosus, *Sharpe, Phil. Trans.* clxviii. p. 468 (1879).

Anous plumbeigularis, *Sharpe, Phil. Trans.* clxviii. p. 468 (1879).

Adult male in breeding-plumage. Forehead nearly white at the base of the bill, passing on the crown into lavender-grey, which deepens on the neck into lead-colour; lores and orbital region black, with a faint whitish supercciliary streak; upper parts chiefly dark brown, the primaries, tail-feathers, and their shafts nearly black; underparts dark brown on the abdomen and breast, passing into deep lead-colour on the throat: bill blackish; tarsi and toes reddish brown, fully webbed, webs ochraceous. Total length about 16 inches, culmen 2·1, wing 10·25–11, tail 6–7, the fourth feather from the outside the longest, tarsus 1, middle toe with claw 1·55.

Adult female. Very similar but, as a rule, somewhat browner on the shoulders and with less lead-colour on the throat, slightly smaller, and with a weaker bill.

Immature. Similar, but with even less lead-colour, and a dark line along the upper wing-coverts.

Young. Browner generally and paler; the forehead and crown greyish brown; below the forehead a narrow white superciliary line conspicuous by contrast against the blackish lores.

Fledgling (Ascension I.). Umber-brown above and below; the whitish streak above the lores very marked, and continuous round the base of the bill; a slight greyish tint on the forehead.

Downy nestling. One about 5 days old (British Honduras: May 12th, 1862) has the forehead and crown dull white, lores blackish, upper surface mouse-brown, nape and throat darkest, lower parts paler. Another, only just hatched, is nearly uniform sooty brown.

Taking the extreme of variation in this species, the Noddies from Central America appear to be the smallest and brownest, while the Polynesian examples are the largest and greyest; but between these there is every gradation in size and colour. It must also be remarked that the feathers of the mantle rapidly become browner under atmospheric influences, and that the lead-grey tints of the shoulders are only to be found in very mature birds; in fact many brownish examples which appear to be adults from the plumage of the head, will be found exhibiting the dark bar on the upper wing-coverts, indicative of immaturity.

Hab. Tropical and juxta-tropical America: chiefly on the Atlantic side, but also on the Pacific in Mexico and the Central region; Atlantic down to Tristan da Cunha (breeding); intertropical African and Asian Seas, up to Yeddo; Australasia down to about 35° S.; Islands of the Pacific up to Laysan, &c., and as far as Sala y Gomez, 105° W.; also Chatham I., Galapagos (*fide* Ridgway), but not on the coasts of Peru or Chile. Breeding, as a rule, where found. Once obtained off the S. coast of Ireland.

a. Ad. st.	North America.	H.R.H. Duke of Suffolk [P.].
b. Ad. st.	North America.	J. J. Audubon [C.].
c. Ad. sk.	Florida (*H. W. Henshaw*).	Salvin-Godman Coll.
d. Juv. sk.	East coast of Mexico (*A. superciliosus*, Sharpe).	C. Barclay, Esq. [P.].
e. Juv. sk.	Jamaica.	Purchased.
f. Juv. sk.	Nevis, Lesser Antilles.	W. Cottle, Esq. [P.].
g. ♀ ad.; *h.* ♂ imm. sk.	St. Vincent, Lesser Antilles, July and Oct. (*D. W. Smith*).	Salvin-Godman Coll.
i. Juv. sk.	Grenada, Lesser Antilles, Sept. 22 (*D. W. Smith*).	Salvin-Godman Coll.
k. Imm. sk.	Redonda I., Lesser Antilles (*Spence*).	Salvin-Godman Coll.
l–q. ♂ ♀ ad.; *r.* Pull. sk.	Glover's Reef, Brit. Honduras, May 12th, 1862 (*O. Salvin*).	Salvin-Godman Coll.
s. ♀ pull. sk.	Cay Dolores Channel, Brit. Honduras, May 17th (*O. S.*).	Salvin-Godman Coll.
t. Ad. sk.	St. Paul's Rocks, Mid-Atlantic.	Antarctic Expedition.

u. ♂ ad. sk.	Fernando Noronha I., N. Brazil, Sept. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
v. ♂ ad. sk.	At sea, off N. Brazil, Oct. (*H. M. H.*).	H. Saunders Coll.
w. Juv. sk.	Bahia, Brazil (*Wucherer*).	H. Saunders Coll.
x. Ad.; *y*. Pull. sk.	Ascension I. (*Prof. D. Gill*).	H. Saunders Coll.
z. ♂ imm. sk.	At sea, lat. 4° N., long. 26° W.	H. S. Greenstreet, Esq. [P.].
a'. Imm. sk.	"Africa."	Lieut. Friend [P.].
b'. Imm. sk.	Cameroons.	Sir R. Burton [P.].
c'. Imm. sk.	Gold Coast.	R. B. Sharpe, Esq. [P.].
d', *e'*. Imm. sk.	Inaccessible Island, Tristan da Cunha, Oct.	H.M.S. 'Challenger' Exped.
f', *g'*. Juv. sk.	Cape Seas.	Capt. T. R. Harry [P.].
h'. Juv. sk.	Off Madagascar, 11° S., 50° E. (*E. Dowker*).	Hume Coll.
i', *k'*. Imm. sk.	Réunion.	J. C. van Dam, Esq. [P.].
l'. Ad. sk.	Mauritius (*Bewsher*).	Shelley Coll.
m'. ♂ ad. sk.	Mauritius, June (*Sir E. Newton*).	H. Saunders Coll.
n'. Ad. sk.	Indian Ocean, Dec. (*Sir E. Newton*).	H. Saunders Coll.
o'. ♂ ad. st.	Rodriguez Id. (*Rev. H. H. Slater*).	Transit of Venus Exp.
p', *q'*. ♂ ♀ ad. sk.	Seychelles.	Shelley Coll.
r, *s*. ♂ ad. sk.	Seychelles (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
t'. Imm. sk.	"Red Sea." (Type of *A. plumbeigularis*, Sharpe.)	J. Middleton, Esq. [P.].
u'. ♀ ad. sk.	South of Red Sea, May (*Dr. A. B. Meyer*).	Tweeddale Coll.
v'. ♀ ad. sk.	Perim Id., Red Sea.	Earl of Cawdor [P.].
w'. Imm. sk.	Gulf of Aden, April (*E. Lort Phillips*).	Shelley Coll.
x'. ♂ vix ad. sk.	Mekran Coast, May (*Col. E. A. Butler*).	Hume Coll.
y'–*z'*. ♂ ♀ ad.; *a''*–*l''*. Imm., vix ad. et juv. sk.	Laccadives, Feb. (*A.O. H.*).	Hume Coll.
m''. ♀ ad. sk.	Bay of Bengal, May (*W. Davison*).	Hume Coll.
n''. Juv. sk.	Between Ceylon and Nicobars, lat. 8° N., long. 9° E. (*A. superciliosus*, Sharpe).	R. B. Sharpe, Esq. [P.].
o''. ♂ imm. sk.	Off Katchall, Nicobars, Apr. (*F. A. de Roepstorf*).	Hume Coll.
p''. Juv. sk.	Penang (*Dr. Cantor*).	E. India Mus. [P.].
q'', *r''*. ♀ imm. et vix ad. sk.	Formosa, June (*R. Swinhoe*).	H. Saunders Coll.
s''. ♂ imm. sk.	Off N.W. Borneo, 3° 30′ N., 110° 41′ E. (*G. Stephen*).	H. Saunders Coll.
t'', *u''*. ♂ ad. sk.	Cocos or Keeling Is., Feb. (*H. O. Forbes*).	H. Saunders Coll.
v''. Imm. sk.	Morotai I., Moluccas (*A. R. W.*).	Wallace Coll.

w''. Ad. sk.	Pelew Islands (*Mus. Godeffroy*).	H. Saunders Coll.
x''. Ad. sk.	Pelew Islands.	J. Cohen [C.].
y''. Vix ad. sk.	At sea, 1° N. lat., 137° 11′ E. long.	H.M.S. 'Challenger' Exped.
z''. Imm. sk.	Off New Guinea, June 27, 1875 (*Col. Hüster*).	Seebohm Coll.
*a*³. Ad. sk.	N.W. coast of Australia.	Capt. Beckett [C.].
*b*³. ♂ ad. sk.	Torres Straits (*Dr. Coppinger*).	Voyage of H.M.S. 'Alert.'
*c*³–*k*³. Ad. et vix ad.; *l*³–*p*³. Juv. sk.	Cape York, N.E. Australia (*Cockerell*).	Salvin-Godman Coll.
*q*³. ♀ ad. sk.	Raine Islet, N.E. Australia.	J. B. Jukes, Esq. [P.].
*r*³. ♂ ad. sk.	Raine Islet, N.E. Australia.	H.M.S. 'Challenger' Exped.
*s*³. ♂ ad. sk.	Lord Howe Island, Sept. 1887 (*Sydney Mus.*).	Seebohm Coll.
*t*³. Ad. sk.	At sea, between New Zealand and Australia.	E. Newman, Esq. [P.].
*u*³. ♀ ad. sk.	Admiralty Islands.	H.M.S. 'Challenger' Exped.
*v*³. Imm. sk.	New Ireland (*Rev. G. Brown*).	Tweeddale Coll.
*w*³. Ad. sk.	"Polynesia" (*H. Saunders Coll.*).	Hume Coll.
*x*³, *y*³. Ad. sk.	Ellice Islands.	Rev. S. J. Whitmee [C.].
*z*³. Ad. sk.	Samoa.	Rev. J. B. Stair [P.].
*a*⁴. Vix ad. sk.	Samoa.	Rev.S.J.Whitmee [C.].
*b*⁴. Juv. sk.	Samoa (*Krause, Mus.Godeffroy*).	H. Saunders Coll.
*c*⁴. Juv. sk.	Society Islands, June.	Hume Coll.
*d*⁴. ♂ ad. sk.	Raiatea, Nov. (*J. Young*).	H. Saunders Coll.
*e*⁴. Ad. sk.	Raiatea (*Mus. Godeffroy*).	H. Saunders Coll.
*f*⁴. Ad. sk.	Huaheine.	J. H.Gurney, Esq.[P.].
g. ♂ ad. sk.	Near Tahiti, Oct. 1875.	H.M.S. 'Challenger' Exped.
*h*⁴. Ad. sk.	Tahiti (*Mus. Godeffroy*).	H. Saunders Coll.
*i*⁴–*l*⁴. Vix ad. sk.	Ducie Id., 24° 40′ S., 124° 48′ W. (*Commr. MacFarlane*).	H. Saunders Coll.
*m*⁴. Juv. sk.	Sala y Gomez Id., 26° 28′ S., 105° 28′ W. (*Commr. MacFarlane*).	H. Saunders Coll.
*n*⁴. Ad. sk.	"West Coast of North America."	Sir W. Burnett and AdmiralFitzroy[P.].
*o*⁴. Ad. sk.	Krusenstern Island, spring 1883 (*Snow*).	Seebohm Coll.
*p*⁴. Vix ad. sk.	Yedo Gulf, Japan (*Harrison*).	Seebohm Coll.
*q*⁴. Pull. in alcohol.	St. Paul's Rocks, Mid Atlantic, Aug. 28, 1873.	H.M.S. 'Challenger' Exped.
*r*⁴. Skeleton.	Rodriguez I. (*Rev. H. H. Slater*).	Transit of Venus Exped.
*s*⁴. Skeleton.		Salvin-Godman Coll.

2. Anous galapagensis.

(?) Megalopterus stolidus *, *Gould, in Darwin's Voy. 'Beagle,' Birds*, p. 146 (1841 : Galapagos Is.).
(?) Anous stolidus *, *Sundev. P. Z. S.* 1871, p. 125 (Galapagos); *Salvin, Tr. Zool. Soc.* ix. p. 504 (1877 : Galapagos).
Anous galapagensis, *Sharpe, Phil. Tr.* clxviii. p. 469 (1879 : Chatham Id., Galapagos); *Salvin, P. Z. S.* 1883, p. 430 (Charles' Id., Galapagos); *Ridgw. Pr. U.S. Nat. Mus.* xii. p. 116, no. 44 (1890 : Hood & Chatham Is., Galapagos); *Stone, Pr. Philad. Acad.* 1894, pp. 115-117 (critical).

Adult? Sooty brown above and below; the flight-feathers and tail blacker than the wing-coverts; bill, tarsi, and toes black, with a livid tinge. Total length 14 inches, culmen 1·8, wing 10·6, tail 6, tarsus 0·95, middle toe with claw 1·5.

Immature (type). Similar, but slightly browner; the bill weaker, and shorter in front of the genys.

Hab. Some islands of the Galapagos Archipelago.

It was interesting, though not very remarkable, to find that the Galapagos Islands harboured a sooty form of Noddy as well as a sooty Gull; but the discovery of the true *Anous stolidus* (*apud* Ridgway) on Chatham Island (see *suprà*, p. 139) is a little disquieting for those who wish to believe in the validity of *A. galapagensis*. I feel tolerably certain that the second of the examples below is not fully adult.

a. Imm. sk. Dalrymple Rock, Chatham Island, Galapagos. Admiral Kellett & Lieut. Wood [P.]. (Type of the species.)
b. ? Ad. sk. Charles Island, Galapagos, Feb. (*Admi. A. H. Markham*). Salvin-Godman Coll.

10. MICRANOUS.

Type.

Micranous, *Saunders, Bull. Brit. Orn. Club*, no. xxiii. p. xix (Jan. 1895) ..... M. tenuirostris (*Temm.*).

Range. Tropical and Sub-tropical seas.

Key to the Species.

a. Lores greyish white; cheeks grey ..... *tenuirostris*, p. 144.
b. Lores deep black; cheeks deep plumbeous.
a'. Darker; nape and shoulders nearly blue-black ..... *leucocapillus*, p. 145.
b'. Lighter; nape, shoulders, and tail dull lavender-grey ..... *hawaiiensis*, p. 148.

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* It is expedient to place a ? against these references because Mr. Ridgway (Pr. U.S. Nat. Mus. xii. p. 116) states that true *A. stolidus* was obtained on Dalrymple Rock, Chatham Island.

1. Micranous tenuirostris.

Sterna tenuirostris, *Temm. Pl. Col.* 202 (1823: "Senegal"); *Lesson, Traité*, p. 620 (1831: *ex Temm.*); *Schl. Mus. P.-B.*, Sternæ, p. 37 (1863: Australia); *Schl. & Poll. Faun. Madag., Ois.* p. 150 (1868: Réunion & Mauritius).

Megalopterus tenuirostris, *Gray, List Gen.* p. 79 (1840: *ex Temm.*; *nec Boie*, 1826).

Hydrocecropis tenuirostris, *Boie, Isis*, 1844, p. 179; *nec* Megalopterus tenuirostris, *Boie*, 1826.

Anous melanops, *Gould, P. Z. S.* xiii. p. 103 (1845: Houtman's Abrolhos); *id. B. Australia*, vii. pl. 35 (1848); *Reichenb. Vög. Neuholl.* ii. pp. 14, 349 (1850); *Bp. C. R.* xlii. p. 773 (1856); *Gould, Handb. B. Austr.* ii. p. 417 (1865); *Gray, Hand-list B.* iii. p. 123, no. 11087 (1871); *Masters, Pr. Linn. Soc. N. S. W.* 1877, p. 64 (Bramble Cay).

Anous tenuirostris, *Reichenb. Natat.* tab. xx. fig. 288 (1848); *Hartl. Faun. Madagasc.* p. 86 (1861); *Saunders, P. Z. S.* 1876, p. 670, pl. lxi. fig. 1 (revision); *Hartl. Vög. Madag.* p. 392 (1877); *Ramsay, Pr. Linn. Soc. N. S. W.* 1877, p. 201; *Oustal. Bull. Soc. Philomath.* 1878, p. 198 (Seychelles); *Sharpe, Rep. Trans. Venus, Phil. Tr.* clxviii. pp. 466, 469 (1879: Rodriguez); *Milne-Edwards & Grandidier, H. N. Madag., Ois.* p. 665, pls. 290 *a*, 290 *b* (1882: osteology); *E. Newton, Tr. Norw. Soc.* iv. p. 553 (1888: Mascarene Is.); *Ramsay, Tab. List Austr. B.* p. 23, no. 705 (1888); *North, Nests & Eggs Austr. B.* p. 359 (1889); *Sibree, Ibis*, 1892, p. 273 (Madagascar); *Wiglesw. Abh. zool. Mus. Dresd.* 1890–91, no. 6, p. 211 (1892: Polynesia); *Stone, Pr. Philad. Acad.* 1894, pp. 115–117 (critical).

Anous senex, *Bp. C. R.* xlii. p. 773 (1856: *nec Leach*).

Micranous tenuirostris, *Saunders, Bull. Brit. Orn. Club*, no. xxiii. p. xix (Jan. 1895; type of genus).

Adult male in breeding-plumage. Forehead and crown greyish white, lores lavender-grey; in front of the eye and above it a black half circlet, followed by a minute white eyelid streak and then a small black spot; below the eye white; cheeks grey; nape pale grey, darkening on the sides of the neck; throat and chin nearly black; mantle and tail greyish or brownish grey (according to the light in which the specimen is held), with an umber tint on the wing-coverts and secondaries, and blackish on the primaries; underparts deep sooty brown, with a dark plumbeous tinge on the throat: bill black; tarsi, toes, and their webs brown. Total length 12 inches, culmen 1·8, wing 8·3, tail 4·7, tarsus 0·9, middle toe with claw 1·35.

The sexes appear to be alike in plumage.

Immature. Similar, but the colours duller and less contrasted; a dark line along the upper wing-coverts, and little plumbeous grey anywhere.

Hab. The Seychelles, Madagascar, the Mascarene Islands, and across the Indian Ocean to Houtman's Abrolhos, Western Australia; also (*fide* Mr. Ramsay) both sides of Torres Straits and the east side of Australia down to New South Wales. Temminck's type is said to have been obtained in Senegal, but no other specimen is known to me from anywhere nearer that locality than the Mascarene Islands.

a, b. ♂ ♀ ad. sk.	Ile Plate and Ile Cousine, Seychelles, Oct. & Nov.	H. Saunders Coll.
c. ♀ ad.; *d.* ♂ imm. sk.	Ile Cousine, Seychelles.	Shelley Coll.
e, f. Ad. sk.	Mauritius (*Bewsher*).	Shelley Coll.
g. Imm. sk.	Mauritius.	R. B. Sharpe, Esq. [P.].
h. Imm. sk.	Mauritius.	Tweeddale Coll.
i. Imm. sk.	Rodriguez I.	Rev. H. H. Slater [C.].
k. Ad. sk.	Rodriguez I.	Sir John Kirk [P.].
l. Ad. sk.	Houtman's Abrolhos, West Australia, Jan. 29th, 1843 (*Gilbert*).	H. Saunders Coll.
m. Ad. st.	Houtman's Abrolhos (*Gilbert*).	J. Gould [C.].
n. Skeleton.	Rodriguez I. (*Rev. H. H. Slater*).	Transit of Venus Exped.

2. Micranous leucocapillus.

Sterna tenuirostris, *Kittlitz* (*nec Temm.*), *Kupfert. Vög.* p. 28, pl. 26. fig. 1 (1833: St. Helena); *id. Reise*, ii. p. 64 (1858: Kushai I.); *Bennett, Gath. Naturalist*, p. 241 (1860: Norfolk Is., &c.).

? Anous minutus, *Boie, Isis*, 1844, p. 188 ("New Holland").

Anous leucocapillus, *Gould, P. Z. S.* 1845, p. 103 (Raine Islet, N. Australia); *id. B. Austr.* vii. pl. 36 (1848); *Macgill. Narr. Voy. Rattlesn.* ii. p. 359 (1852); *Bp. C. R.* xlii. p. 773 (1856); *Cassin, U.S. Expl. Exp.* p. 393 (1858); *Gray, P. Z. S.* 1858, p. 198; *id. Cat. B. N. Guin.* p. 63 (1859); *id. Cat. B. Trop. Is. Pacific*, p. 60 (1859); *Hartl. Ibis*, 1864, p. 232 (Fiji); *Finsch, N.-Guin.* p. 184 (1865); *Gould, Handb. B. Austr.* ii. p. 419 (1865); *Blasius, J. f. O.* 1866, pp. 82, 86 (revision); *Finsch & Hartl. Faun. Centralpolyn.* p. 237 (1867); *Gray, Hand-list B.* iii. p. 123, no. 11088 (1871); *Hume, Str. F.* 1874, p. 322 (Indian Ocean); *Layard, P. Z. S.* 1876, pp. 497, 504; *Saunders, P. Z. S.* 1876, p. 670, pl. lxi. fig. 3 (revision); *Masters, Pr. Linn. Soc. N. S. W.* 1877, p. 64 (Nepean I.); *Ramsay, op. cit.* 1878, p. 202; *Finsch, P. Z. S.* 1877, p. 781 (Ponapé); *Sharpe, P. Z. S.* 1878, p. 273 (Ellice Is.); *id. Ibis*, 1878, p. 415 (Sarawak); *id. Phil. Tr.* clxviii. p. 468 (1879); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 410 (1882); *id. Orn. Papuasia etc.* iii. p. 457 (1882); *Oates, B. Brit. Burm.* ii. p. 435 (1883); *Finsch, Vög. Südsee*, p. 52 (1884: Marshall Is. & New Guinea); *W. O. Grant, P. Z. S.* 1887, p. 333 (Solomon Is.); *Ramsay, Tab. List Austr. B.* p. 211 (1888); *Ridley, Zool.* 1888, p. 43 (Fernando Noronha); *Everett, B. Borneo*, p. 211 (1889); *Tristr. Cat. Coll. B.* p. 10 (1889); *Sharpe, Ibis*, 1890, p. 149 (N. Borneo); *Wiglesw. Abh. zool. Mus. Dresd.* 1890–91, no. vi. p. 77 (1892: Polynesia); *Stone, Pr. Philad. Acad.* 1874, pp. 115–117 (critical).

Anous melanogenys, *Gray, Gen. B.* iii. p. 661, pl. 182 (1846); *Reichenb. Natat.* tab. cccxxxi. fig. 2624 (1850); *Bp. C. R.* xlii. p. 770 (1856); *Krefft, Ibis*, 1862, p. 131; *Gray, Hand-list B.* iii. p. 123, no. 11085 (1871); *Saunders, P. Z. S.* 1876, p. 670, pl. lxi. fig. 2 (revision Sterninæ); *Cab. & Reichenow, J. f. O.* 1876, p. 327 (Tonga Is.); *Scl. P. Z. S.* 1877, p. 557 (Admiralty Is.); *Finsch, t. c.* p. 781 (Pelew Is.); *Saunders, t. c.* p. 798 (St. Paul's Rocks, Tristan da Cunha, &c.); *id. Journ. Linn. Soc.* xiv. p. 404 (1878: distribution); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 202;

Penrose, Ibis, 1879, p. 280 (Ascension I., breeding); *Sharpe, P. Z. S.* 1879, p. 354 (Labuan); *id. Phil. Trans.* clxviii. pp. 467, 468 (1879); *Moseley, Nat. on the 'Challenger,'* p. 68 (1879: St. Paul's Rocks); *Saunders, Rep. H.M.S. 'Challenger,' Birds*, ii. p. 137 (1880); *Finsch, J. f. O.* 1880, p. 308 (Kushai); *id. P. Z. S.* 1880, p. 577 (Caroline Is.); *id. Ibis*, 1880, pp. 220, 332 (Marshall Is.); *id. op. cit.* 1881, p. 109 (Kushai Id.); *id. t. c.* pp. 113, 115 (Ponapé Id.); *id. t. c.* p. 431 (not in Gilbert Is.); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 409 (1882); *id. Orn. Papuasia*, iii. p. 456 (1882); *Tristram, Ibis*, 1883, p. 48 (Fanning I.; breeding); *Finsch, Vög. Südsee*, p. 52 (1884: Marshall & Caroline Is.; breeds); *J. Murray, Narr. 'Challenger,'* i. p. 204 (St. Paul's Rocks) and p. 738 (1885); *Crowfoot, Ibis*, 1885 (Norfolk I.; breeding); *MacFarlane, Ibis*, 1887, p. 214 (Vostok I.; breeding); *Ramsay, Tab. List Austr. B.* p. 23 & p. 38 (1888); *Everett, B. Borneo*, p. 211 (1889); *North, Nests & Eggs Austr. B.* p. 376, pl. xxi. fig. 5 (1889: Lord Howe & Philip Is.); *Wiglesw. Abh. zool. Mus. Dresd.* 1890-91, no. vi. p. 77 (1889: Polynesia); *Ridley & Sharpe, Journ. Linn. Soc.* xx. p. 480 (1890: Fernando Noronha); *Hartert, Kat. Vogelsamml. Senckenb.* p. 238 (1891: Caroline Is.).

Anous tenuirostris, *Blyth, J. A. S. Beng.* xvi. p. 373 (1847); *id. Cat. B. Mus. As. Soc.* 1849, p. 293; *Hartl. J. f. O.* 1854, p. 170 & p. 307; *Hartl. Orn. W.-Afr.* p. 256 (1857: Gambia); *Jerd. B. India*, iii. p. 846 (1864: Bay of Bengal); *Salvin, Ibis*, 1864, p. 383 (Brit. Honduras); *Coues, t. c.* p. 393; *Blyth, Ibis*, 1865, p. 40 (Bay of Bengal); *Salvin, op. cit.* 1866, p. 200; *Blyth, op. cit.* 1867, p. 178; *Beavan, t. c.* p. 334; *id. op. cit.* 1868, p. 405; *Scl. & Salv. P. Z. S.* 1871, p. 566 (revision); *Ball, Str. F.* i. p. 90 (1873: Andamans); *Coues, B. N.-West*, p. 710, note (1874); *Finsch & Hartl. P. Z. S.* 1872, p. 113 (Pelew Is.); *Finsch, Journ. Mus. Godeffr.* 1875, Hft. viii. p. 42 (Pelew Is.); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 147 (1873).

Megalopterus tenuirostris, *Peale* (*nec Temm., nec Boie*), *U.S. Expl. Exped., Birds*, p. 284 (1848: Paumotu Is.); *Hartl. Wiegm. Arch.* 1852, p. 127.

Anous leucocephalus, *Reichenb. Vög. Neuholl.* ii. p. 13 (1850); *id. Natat.* tab. cclxxiii. figs. 2272–73 (1850); *Ramsay, Pr. Linn. Soc. N. S. W.* 1877, p. 77 (Fiji Is.).

Sterna leucocapilla, *Schleg. Mus. Pays-Bas*, Sternæ, p. 37 (1863: Indian seas).

Anous senex, *Hume* (*nec Leach*), *Str. F.* 1874, p. 321 (Andaman Is.).

Anous atrofuscus, *Stone, Pr. Philad. Acad.* 1894, p. 117 (New Guinea and Monte Video!).

Adult male in breeding-plumage. Similar to the preceding species, but the forehead and crown whiter and the rest of the body very much darker; the lores jet-black; the cheeks deep lead-colour to sooty black; upper and under parts nearly black: bill black; tarsi and toes dark brown. Total length 13 inches, culmen 2 to 2·1, wing 8·9 to 9·1, tail 4·8 to 5, tarsus 0·9, middle toe with claw 1·4.

The sexes seem to be alike in plumage, examples marked ♀ being quite as black as those marked ♂.

Birds which are not quite mature have a somewhat sooty tinge in their plumage, with less plumbeous-grey about the neck. In a state intermediate between this and the next stage they were described as *A. leucocapillus* by Gould, whose name is the first available.

Immature. Forehead and crown white; lores white; neck and nape sooty black, which throws the white crown into strong relief, owing to the absence of any intermediate lead-colour; mantle, tail, and underparts umber-brown, the primaries blackish: tarsi and toes brown; bill comparatively short in front of the genys.

Young. Forehead and anterior crown white; lores black; upper parts generally umber-brown, with cinnamon borders to the wing-coverts and secondaries; primaries blackish; underparts mouse-brown; bill only about 0·5 in front of the genys. In an older bird the white is less pure, but extends further back on the crown, and the plumage has a slightly barred appearance.

Nestling. Forehead and crown dull white, rest of the body sooty black.

Hab. Caribbean Sea, inter-tropical Atlantic, and down to Inaccessible Island, near Tristan da Cunha (breeding); both sides of South Africa, Indian Ocean up to Bay of Bengal; Malayasia, Papuasia, Pelew and Caroline Islands, Northern Australia, and most of the islands of the South Pacific as far as the Society group (breeding).

a–d. ♂ ♀ ad.; *e, f.* Pull. sk.	Glover's Reef, British Honduras, May 12th, 1862 (*O. S.*).	Salvin-Godman Coll.
g. Ad. sk.; *h.* Ad. & *i.* Pull sk. (in alcohol).	St. Paul's Rocks, Equatorial Atlantic.	H.M.S. 'Challenger' Exped.
k. ♂ imm. sk.	Fernando Noronha, N. Brazil, Sept. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
l–n. ♂ ad. et juv. sk.	Fernando Noronha (*H.N.R.*).	H. N. Ridley, Esq. [P.].
o–q. Vix ad. et imm. sk.	Ascension I. (*Prof. D. Gill*).	H. Saunders Coll.
r. Ad. sk.	Saint Helena (*H. Whitely*).	H. Saunders Coll.
s. Juv. sk.	Inaccessible I., Tristan da Cunha, Oct.	H.M.S. 'Challenger' Exped.
t Vix ad sk.	Sierra Leone (*Mitford*).	H. Saunders Coll.
u. Imm. sk.	Gold Coast (*H. Whitely*).	R. B. Sharpe, Esq. [P.].
v. Vix ad. sk.	Near Minicoy I., N. Indian Ocean.	Hume Coll.
w. Vix ad. sk.	Between Ceylon and Nicobar Is., 91° E., 8° N.	R. B. Sharpe, Esq. [P.].
x. Ad. sk.	Malacca (*A. C. Maingay*).	Tweeddale Coll.
y. Juv. sk.	Lawas River, Sarawak, Borneo.	Gov. Ussher [C.].
z. ♀ ad. sk.	Admiralty Is.	H.M.S. 'Challenger' Exped.
a', b'. Imm. et juv. sk.	Pelew Is. (*Mus. Godeffroy*).	H. Saunders Coll.
c'. Imm. sk.	Pelew Is.	J. Cohen [C.].
d'. Ad. sk.	Pelew Is. (*J. Cohen*).	Tweeddale Coll.
e'. Juv. sk.	Off Bristow I., south coast of New Guinea, April 24, 1845 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'

f'. Juv. st.	Off Barnard Is., Queensland (*J. M.*).	Voy. H.M.S. 'Rattlesnake.'
g'. Ad. sk.	Moreton Bay, Queensland (*J. M.*).	Voy. H.M.S. 'Rattlesnake.' (? Type of *A. melanogenys*, Gray.)
h'. Ad. sk.	Port Mackay, Queensland (*Mus. Godeffroy*).	H. Saunders Coll.
i'. Ad. sk.	Phillip I. (*Rev. P. Metcalfe*).	H. Saunders Coll.
k'. ♀ ad. sk.	Bua, Fiji Is., Dec. (*E. L. Layard*).	Tweeddale Coll.
l'–p'. ♂ ♀ ad. sk.	Ovalau, Fiji, Jan., Feb., & Oct.	Tweeddale & Seebohm Colls.
q'. ♀ ad. sk.	Levuka, Fiji, Feb. (*E. L. L.*).	Tweeddale Coll.
r'. ♀ ad. sk.	Naudronga, Fiji, Oct. (*E. L. L.*).	Tweeddale Coll.
s'. ♀ imm. sk.	Tongatabu, Nov. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
t'. Juv. sk.	Ellice Is.	Rev. S. J. Whitmee [C.].
u'–w'. ♂ ♀ ad. sk.	Raiatea, Society Is., Nov. (*J. Young*).	H. Saunders Coll.
x', *y'*. Ad. sk.	Vostok I., Oct. (*Commr. Macfarlane*).	H. Saunders Coll.
z'. Ad. sk.	At sea, between the Admiralty and Caroline Is., 5° N., March 20, 1875.	H.M.S. 'Challenger' Exped.
a''. Skeleton.	British Honduras (*O. Salvin*).	Salvin-Godman Coll.

3. Micranous hawaiiensis.

Anous tenuirostris, *Gray* (*nec Temm.*), *List B. Brit. Mus.*, Anseres, p. 181 (1844: Sandwich Is.).

? Anous tenuirostris, *Licht. Nomencl. Av.* p. 79 (1854: Sandwich Is.).

? Anous melanogenys, *Stejneger*, *Pr. U.S. Nat. Mus.* xi. p. 94 (1889: Niahau, Hawaiian Is.).

Anous hawaiiensis, *Rothschild*, *Bull. Brit. Orn. Club*, no. x. p. xvii (July 1893), and *Ibis*, 1893, p. 571 (Hawaiian Is.); *id. Avifauna Laysan.* pt. i. p. 43, cum tab., egg, pl. iii. fig. 13 (Aug. 1893).

Adult in breeding-plumage. Forehead and crown greyish white, much as in *M. tenuirostris*, but the lores are quite black and the cheeks are dark lead-grey; nape, shoulders, and mantle not so dark as in *M. leucocapillus*; tail distinctly grey; underparts sooty black, throat deep plumbeous: bill black; tarsi and toes brown, webs yellowish. Total length 13·5 inches, culmen 1·8, wing 8·65, tail 5, tarsus 0·75, middle toe with claw 1·25.

Immature. Similar, with a browner tint.

This species is intermediate between *M. tenuirostris* and *M. leucocapillus*, though nearer to the latter. Since Mr. Rothschild named the species, a specimen of which he has presented, I have discovered another example in the Museum Collection. This was obtained many years ago by Capt. Lord Byron, of H.M.S. 'Blonde,' probably at or near the Sandwich Islands.

Hab. Sandwich Islands and vicinity.

a. ♂ ad. sk.	Kauai Id., Sandwich Is., April 21, 1891 (*H. C. Palmer*).	Hon. Water Rothschild [P].
b. Ad. sk.	Sandwich Is. (*H.M.S. 'Blonde'*).	Capt. Lord Byron, R.N. [P.].

11. GYGIS.

	Type.
Gygis, *Wagler*, *Isis*, 1832, p. 1223	G. candida.

Range. Intertropical seas.

Key to the Species.

a. Larger: bill stouter; tail more pointed, the second feather from the outside the longest; shafts usually brownish ..... *candida*, p. 149.

b. Smaller: bill more slender, especially in front of the genys; tail shorter, more rounded, the third feather from the outside the longest; shafts pure white ..... *microrhyncha*, p. 152.

1. Gygis candida.

The White Tern, *Lath. Gen. Syn.* iii. pt. 2, p. 363 (1785); *id. ibid. Suppl.* i. p. 266 (1787); *Portlock's Voy. Round the World*, p. 312 pl. (1789: Sandwich Is.).

? Sterna alba, *Sparrm. Mus. Carls.* ii. fasc. i. no. 11 (1786); *Gm. Syst. Nat.* i. p. 607 (1788).

Sterna candida, *Gm. Syst. Nat.* i. p. 607, no. 19 (1788); *Forster, Descr. An.* pp. 179, 210, 247 (1844).

Sterna alba, *Lath. Ind. Orn.* ii. p. 808 (1790); *Bonn. Enc. Méth.* i. p. 94 (1790); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 160 (1826); *Lesson, Traité*, p. 623 (1831: Tahiti); *Vigors, Zool. Voy. 'Blossom,'* p. 38 (1839: Pitcairn I.); *Reichenb. Natat.* tab. xxi. figs. 818–19 (1848); *Schl. & Poll. Faune Madag., Ois.* p. 150 (1868); *Hartl. Wiegm. Arch.* 1852, p. 126; *Schl. Mus. P.-Bas*, Sternæ, p. 35 (1863).

Sterna semi-alba, *Bonn. Enc. Méth.* i. p. 94 (1790).

Gygis candida, *Wagler, Isis*, 1832, p. 1223, *ex J. R. Forster, MS.* (type of genus); *Gray, List Gen.* (1840) p. 79; *id. op. cit.* (1841) p. 100; *id. List B. Brit. Mus.*, Anseres, p. 180 (1844); *Boie, Isis*, 1844, p. 185; *Gray, Gen. B.* iii. p. 660 (1846); *Gould, B. Australia*, vii. pl. 30 (1848); *Reichenb. Vög. Neuholl.* p. 347 (1850); *Hartl. Wiegm. Arch.* 1852, p. 126; *id. J. f. O.* 1854, p. 169; *Bp. C. R.* xlii. p. 772 (1856); *Kittlitz, Reise*, i. p. 382, ii. p. 39 (1858: Ponapé); *Gray, Cat. B. Trop. Is. Pacific*, p. 59 (1859); *G. Bennett, Gath. Nat. Austr.* p. 241 (1860: Moreton Bay); *Hartl. Faun. Madag.* p. 86 (1861: Mauritius); *Pelz. Reis. Novara, Vög.* p. 155 (1863: Tahiti & N. Caledonia); *Gould, Handb. B. Austr.* ii. p. 405 (1865); *Melliss, Ibis*, 1870, p. 106 (St. Helena, breeds); *Pelzeln, Ibis*, 1873, p. 123 (type of Latham's White Tern in Vienna Mus.); *Tristr. Ibis*, 1876, p. 266 (New Hebrides); *Saunders, P. Z. S.* 1876, p. 667 (revision); *id. op. cit.* 1877, p. 797 (Ascension & Tahiti); *id. Journ. Linn. Soc.* xiv. p. 404 (1878: distribution); *David & Oustal. Ois. Chine*, p. 529 (1877); *Sharpe, P. Z. S.* 1878, p. 273 (Ellice Is.); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *Penrose, Ibis*, 1879, p. 279 (Ascension, breeding); *Finsch, Ibis*, 1880, pp. 220 & 332 (Marshall Is.); *Saunders*,

P. Z. S. 1880, p. 163 (Trinidad Islet); *id. Voy. 'Challenger,'* ii. *Birds*, p. 136 (1881); *Tristram, Ibis*, 1881, p. 251 (Marquesas); *id. op. cit.* 1883, p. 48 (Fanning I., breeds); *Salvin, Cat. Strickl. Coll.* p. 626 (1882); *Crowfoot, Ibis*, 1885, p. 266 (Norfolk I., breeds); *H. O. Forbes, Nat. Wander. East. Archip.* pp. 33–34 (Cocos or Keeling Is.); *Saunders, P. Z. S.* 1886, p. 337 (Diego Garcia, Chagos Is.); *MacFarlane, Ibis*, 1887, p. 210 (Sala y Gomez I., 26° S., breeding), p. 211 (Ducie I.), p. 212 (Pitcairn I.), p. 213 (Fanning I.); *Ramsay, Tab. List Austr. B.* pp. 23 & 38 (1888); *Ridley, Zool.* 1888, p. 44; *Sharpe, Journ. Linn. Soc.* xx. p. 480 (1890: Fernando Noronha); *Tristram, Cat. Coll. B.* p. 10 (1889); *North, Nests & Eggs Austr. B.* p. 374, pl. xxi. fig. 4 (1889: Norfolk I.); *Lister, P. Z. S.* 1891, pp. 297–98, 300 (Phœnix Group).

Sterna pacifica, *Lesson, N. H. Mamm. et Ois.* x. p. 156 (1837: Low Archipelago).

Sterna nivea, *F. D. Bennett, Narr. Whaling Voy.* i. p. 370, Caroline Id. i. p. 384, Christmas I.: breeding (1840).

Gygis alba, *Licht. Nomencl. Av.* p. 97 (1854: Sandwich Is.); *Bp. C. R.* xlii. p. 772 (1856); *Cassin, U.S. Expl. Exped.* p. 389 (1858); *Blasius, J. f. O.* 1866, p. 73 (revision); *Finsch & Hartl. Faun. Centralpolyn.* p. 232 (1867); *Dole, Pr. Bost. Soc. N. H.* 1869, p. 306 (Sandwich Is.); *Gray, Hand-l. B.* iii. p. 122, no. 11083 (1871); *Swinh. P. Z. S.* 1871, p. 422; *Finsch, op. cit.* 1872, p. 114; *Gräffe, Journ. Mus. Godeffr.* 1873, Bd. i. p. 50 (Huaheine); *Salvad. Ucc. Born.* p. 375 (1874); *Layard, P. Z. S.* 1876, p. 497 (Levuka); *id. Ibis*, 1876, p. 393; *Hartl. Vög. Madag.* p. 389 (1877); *Finsch, Journ. Mus. Godeffr.* 1875, Hft. viii. p. 43 (Pelew Is.); *id. op. cit.* 1876, Hft. xii. p. 40 (Fiji, Samoa, & Carolines); *id. P. Z. S.* 1877, p. 782 (Ponapé), p. 777 (Eua, Friendly Is.), p. 786 (Niuafou, breeds); *id. P. Z. S.* 1880, p. 577 (Caroline Is.); *id. J. f. O.* 1880, pp. 295 & 309 (Kushai); *id. Ibis*, 1881, pp. 105 & 109 (Kushai); *id. t. c.* pp. 113, 115 (Ponapé); *Streets, Bull. U.S. Nat. Mus.* vii. p. 28 (1877: Fanning group); *Schmeltz, Ethn. Abth. M. G.* 1881, pp. 224, 239, 299, 330, 353; *Oates, B. Brit. Burm.* ii. p. 433 (1883); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xliv. p. 207 (1884: Java); *Finsch, MT. orn. Ver. Wien*, 1884, p. 125; *id. Vög. Südsee*, p. 52 (1884: Kushai); *Finsch, Ornis*, 1887, p. 375 (Diego Garcia); *E. Newton, Tr. Norw. Soc.* iv. p. 553 (1888: Mascarene Is.); *Vorderm. Nat. Tijdschr. Nederl. Ind.* xlix. p. 420 (1889: Sumatra); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 356 (1890: "New Zealand"); *Hartert, Katal. Vogelsamm. Senckenb.* p. 237 (1891: Australia); *Wiglesworth, Abh. zool. Mus. Dresden*, 1890–91, no. vi. p. 78 (1892: Polynesia); *Rothsch. Arif. Laysan.* i. p. 35, cum tab., egg, pl. iii. fig. 11 (1893).

Gygis napoleonis, *Bp. C. R.* xlii. p. 772 (1856).

Gygis alba kittlitzi, *Hartert, Katal. Vogelsamm. Senckenb.* p. 237 (1891: Caroline Is.).

Adult in breeding-plumage. Above and below ivory-white, except for a narrow black ring round the eye; at times, some dark colour on the shafts of the primaries and rectrices, depending, I think, on the age of the feather: bill black, irides blue; tarsi and toes dark brown, the webs yellow and very much incised. Total length 12 to 13 inches (depending upon the length of the tail-feathers), culmen 1·8, depth of the bill behind the nostril 0·4, wing 9·5, tail 4·25 to 5, tarsus 0·6, middle toe with claw 1·1. Examples with fully developed and unabraded tail-feathers are

seldom obtained. It is not improbable that the rectrices may be longer in the male; otherwise the sexes are alike in plumage.

Immature. Like the above, but the shafts of the primaries and rectrices are darker.

Young. Feathers white, with dark shafts to the quills. In a bird scarcely fledged, the forehead and mantle are tinged with clove-brown, and filamentous down of that colour hangs about upper parts, becoming darker on the nape, also on the chin. These brown markings rapidly pass away.

Hab. Fernando Noronha, Trinidad and Martin Vas Islets, Ascension, St. Helena, Madagascar, Mascarene Islands and vicinity, Chagos group, Bay of Bengal, Malayasia to Australia, Polynesia to Ducie Island, and the Central Pacific generally, up to the Sandwich Islands and Krusenstern Islets.

a, b. Ad.; *c.* Juv. sk.	Fernando Noronha Id., N. Brazil.	H. N. Ridley, Esq. [P.].
d, e. ♂ ad. sk.	Fernando Noronha Id., N. Brazil, Sept. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
f. Ad. sk.	Trinidad Islet, S. Atlantic, 20° 23′ S. lat., 40° 43′ W. long., Aug. 1.	Earl of Crawford [P.].
g. Ad. sk.	Trinidad Islet, S. Atlantic (*Earl of Crawford*).	H. Saunders Coll.
h. Ad. sk.	Ascension Id., South Atlantic (*Prof. D. Gill*).	H. Saunders Coll.
i, k. ♂ ♀ ad. sk.	Ascension Id.	H.M.S. 'Challenger' Exped.
l. Imm. sk.	Rodriguez Island.	Sir John Kirk [P.].
m, n. ♂ ♀ ad. sk.	Rodriguez Island.	Rev. H. H. Slater [C.].
o. Ad. sk.	Seychelles Is., March (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
p, q. ♂ ad. sk.	Seychelles Is.	Shelley Coll.
r. Ad.; *s, t.* Juv. sk.	Cocos or Keeling Is., S. Indian Ocean, Jan. (*H. O. Forbes*).	H. Saunders Coll.
u. Ad. sk.	Pelew or West Caroline Is. (*Capt. Peters*).	H. Saunders Coll.
v. Ad. sk.	Pelew or West Caroline Is.	J. Cohen [C.].
w. Ad. sk.	Norfolk Island (*Rev. P. Metcalfe*).	H. Saunders Coll.
x–z. ♀ ad. sk.	Eua, Tonga Islands, Feb. (*E. L. Layard*).	Tweeddale and Seebohm Colls.
a′, b′. Ad. et juv. sk.	Samoa.	Rev. J. Whitmee [C.].
c′. Juv. sk.	Samoa (*Krause*).	H. Saunders Coll.
d′. Ad. sk.	Society Islands.	Hume Coll.
e′, f′. Ad.; *g′.* Juv. sk.	Raiatea, Nov. (*J. Young*).	H. Saunders Coll.
h′, i′. ♂ ♀ ad. sk.	Tahiti, Nov. (*J. Young*).	H. Saunders Coll.
k′, l′. ♀ ad. sk.	Tahiti.	H.M.S. 'Challenger' Exped.
m′. Ad. sk.	Ducie Island, 24° 40′ S., 124°48′ W., March (breeding) (*Commr. MacFarlane*).	H. Saunders Coll.

n'. Ad. sk.	Krusenstern Is., spring (*O. Snow*).	Seebohm Coll.
o', p'. In alcohol.	Ascension Id.	H.M.S. 'Challenger' Exped.
q', r'. Skeletons.	Rodriguez Id.	

2. Gygis microrhyncha.

Gygis microrhyncha, *Saunders*, *P. Z. S.* 1876, p. 668 and cut (Marquesas); *Tristr. Ibis*, 1881, p. 252 (Marquesas); *id. Cat. Coll. B.* p. 10 (1889); *Wiglesworth, Abh. zool. Mus. Dresden*, 1890-91, no. vi. p. 78 (1892).

Adult in breeding-plumage. Like the preceding species, but smaller, and the shafts of the tail-feathers quite white; bill black; tarsi and toes brown, the webs yellow. Total length 10·4 inches, culmen 1·5, depth of the bill behind the nostril 0·25, wing 8·6, tail 3·2, tarsus 0·45, middle toe with claw 0·9.

Not many specimens are known of this species; but in the eight which I have examined the peculiarities mentioned in the 'Key' appear to be constant.

Hab. Marquesas Islands; perhaps on only one island of that group. The larger species is also found there.

a. Ad. sk.	Marquesas Islands.	H. Saunders Coll. (Type of species.)
b, c. Juv. st.	Nukahiva, Marquesas Islands.	Purchased.
d. Ad. sk.	Nukahiva, Marquesas Islands.	J. Gould [C.].

Subfamily II. RHYNCHOPINÆ.

12. RHYNCHOPS.

	Type.
Rygchopsalia, *Brisson, Orn.* vi. p. 222 (1760: *ex Barrère, Orn. Sp. Nov.* p. 20, 1745)	? R. nigra.
Rhynchops *, *Linn. Syst. Nat.* i. p. 223 (1766)	R. nigra.
"Psalidoramphos and Anisoramphos, *Dumont*," *Ranzani, Elementi Zool.* iii. p. 62 (1826)	? R. nigra.
Rhynchopsalia, *Gloger, Hand- u. Hilfsb.* p. 463 (1842).	

Char. Bill with the mandibles much compressed, the lower considerably the longer; wings long; tail short, slightly forked; feet small, the webs between the middle and inner toes deeply indented.

Range. Temperate and tropical regions of North and South America; tropical and juxta-tropical Africa, and India to Burma. Eggs deposited on sand-banks.

Key to the Species.

a. Bill yellow at the base only, the anterior portion black.
  a'. Secondaries broadly (over 1·5 in.) edged with pure white; under wing-coverts white.

* Originally *Rynchops*.

a''. Smaller: rectrices chiefly white .... *nigra*, p. 153.
b''. Larger: rectrices chiefly brown, with merely white borders to the outer webs ..... *intercedens*, p. 155.
b'. Secondaries with only narrow (0·1 in.) edgings of dull white; rectrices dark brown, with whitish margins only 0·1 wide at most; under wing-coverts dusky. *melanura*, p. 156.
b. Bill entirely orange-yellow in the adult.
c'. Without a white collar: smaller ..... *flavirostris*, p. 158.
d'. With a broad white collar: larger..... *albicollis*, p. 159.

1. Rhynchops nigra.

The Cut Water, *Catesby, Nat. Hist. Carol.* i. p. 90, pl. 90 (1731).

Le Bec-en-Ciseaux, *Brisson, Orn.* vi. p. 223, pl. xxi. fig. 2 (1760); *Buff. Hist. Nat. Ois.* viii. p. 454 (1781: partim.; but fig. xxxvi. represents *R. melanura*).

Le Bec-en-ciseaux fauve, *Brisson, Orn.* vi. p. 227 (1760: juv., *ex Barrère, Orn. Sp.* p. 20, 1745).

Rhynchops nigra, *Linn. Syst. Nat.* i. p. 228 (1766: North America); *Gm. Syst. Nat.* i. p. 611 (1788: N. America); *Lath. Ind. Orn.* ii. p. 802 (1790); *Bonn. Enc. Méth.* i. p. 100 (1791); *Shaw & Nodd. Nat. Miscell.* ix. pl. 325 (1798); *Illiger, Prod.* p. 271 (1811); *Wilson, Amer. Orn.* vii. p. 85, pl. 60. fig. 4 (1813); *Cuv. Règne An., Ois.* p. 344, *Atlas*, pl. 93 (1817); *Licht. Verz. Doubl.* p. 80 (1823: pt.); *Stephens, Shaw's Gen. Zool.* xiii. pt. 1, p. 136 (1826); *Jard. ed. Wilson's Am. Orn.* ii. p. 376 (1832); *Nuttall, Man. Orn.* ii. p. 264 (1834); *Bp. Comp. List B. Eur. & N. Am.* p. 60 (1838); *Audub. Orn. Biogr.* iv. p. 203 (1838); *id. Synop.* p. 314 (1839); *id. B. N. Amer.* 8vo ed. vii. p. 67, pl. 428 (1846); *Giraud, B. Long Isl.* p. 346 (1844); *Boie, Isis*, 1844, p. 191; *Gray, Gen. B.* iii. p. 656 (1846); *Reichenb. Natat.* tab. xviii. figs. 400–401 (1848); *id. Syst. Nat.* pl. iv. (1850); *id. Av. Syst. Nat., Longip.* p. v (1852); *Licht. Nomencl. Av.* p. 97 (1854: North America); *Bp. C. R.* xlii. p. 773 (1856); *Baird, Cass., & Lawr. B. N. Amer.* p. 866 (1858); *Baird, Mexican Bound. Surv.* p. 28 (1859); *A. & E. Newton, Ibis*, 1859, p. 371 (Id. of St. Croix, W.I.); *Sclater, P. Z. S.* 1864, p. 179 (Mexico City); *Léot. Ois. Trinidad.* p. 534 (1866); *Dresser, Ibis*, 1866, p. 45 (Texas); *Salv. Ibis*, 1865, p. 193; *id. op. cit.* 1866, p. 200 (Acapam, Pacific); *Gray, Hand-l. B.* iii. p. 124 (1871: partim); *Scl. & Salv. P. Z. S.* 1871, p. 566 (partim, as regards Cuba); *Allen, Bull. Harv. Coll.* ii. p. 368 (1871; Florida); *Coues, Pr. Philad. Acad.* 1872, p. 46; *id. Key N. Am. B.* p. 324 (1872); *id. B. N.-West*, p. 715 (1874); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 318 (1874: San Blas, Pacific); *Gundl. Orn. Cuba*, p. 312 (1876); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 52 (1876: Tehuantepec, Pacific); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 66 (1878: S. Texas); *Deane, Bull. Nutt. Orn. C.* 1879, p. 242 (New England); *Maynard, B. East. Amer.* p. 482 (1881); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 51 (1881); *Chamberlain, B. New Brunsw.* p. 67 (1882); *Salvin, Cat. Strick. Coll.* p. 627 (1882); *Coues, Check-l. N. Amer. B.* p. 124 (1882); *Boucard, P. Z. S.* 1883, p. 462 (Yucatan); *Ridgw. Cat. Fish. Exhib.* p. 29 (1883); *Stearns & Coues, New Eng. Bird-life*, p. 376 (1883); *Coues, Key N. Amer. B.* 2nd ed. p. 772 (1884); *Baird, Brewer, & Ridgw. Water-B.*

N. Amer. ii. p. 192 (1884); *A. O. U. Check-l. N. Amer. B.* p. 97 (1886); *Ridgw. Man. N. Amer. B.* p. 49 (1887); *Cooke, Bird Migr. Mississippi Vall.* p. 58 (1888): *Cory, B. West Indies*, p. 275 (1889: Cuba & St. Croix); *Salvin, Ibis*, 1889, p. 379 (Cozumel); *Scott, Auk*, 1890, p. 306 (Dry Tortugas); *Schick, t. c.* p. 327 (New Jersey: breeds); *Rhoads, Pr. Ac. Philad.* 1892, p. 101 (Texas: ab. & br.); *Cory, Cat. West Ind. B.* p. 83 (1892).

? Rhynchops fulva, *Linn. Syst. Nat.* i. p. 229 (1766: "America;" juv.); *Gm. S. N.* i. p. 611 (1788).

Le Bec en Ciseaux de Cayenne, *Daubent. Pl. Enl.* ix. p. 304, pl. 357 (1784: plate undoubtedly represents *R. nigra*).

Black Skimmer, *Lath. Gen. Syn.* iii. pt. 2, p. 347 (partim), fig. frontisp. (1785: *ex Linn.*); *id. Hist. B.* x. p. 96 (1824).

Rhincops nigra (*sic*), *Bp. Obs. Nomencl. Wils.* no. 240 (1826); *id. Ann. Lyc. N. Y.* ii. p. 352 (1828).

Rhynchops niger, *Swains. Classif. B.* ii. p. 373 (1837).

Rhynchops borealis, *Swains. An. in Menag.* p. 360 (1838).

Adult male in breeding-plumage. Forehead (to the depth of 0·6 inch), cheeks, throat, and underparts white: crown, nape, shoulders, and mantle black; primaries sooty black, the three upper ones tipped and margined with white; secondaries and parapteral feathers deeply bordered with pure white; the lateral tail-feathers chiefly white on the outer webs and pale brown at the tips and along the inner webs, the central feathers with more brown than white: under tail-coverts, underside of tail-feathers, and under wing-coverts white: bill red at the base, shading into yellow (dull in preserved specimens), blackish on the anterior portion; iris dark brown; tarsi and toes orange-red. Total length about 17 inches, culmen 3·1, genys 4·2, wing 14·75–15·25, tail 5·5, depth of fork about 1·1, tarsus 1·4, middle toe with claw 1·3.

Adult female. Similar, but considerably smaller. Total length 15 inches, culmen 2·6, genys 3·15, wing 14, tail 5, tarsus 1·1, middle toe with claw 1·1.

Adult in winter. Similar, but with an irregular white nuchal collar, and a brownish tint to the black of the mantle and flight-feathers.

Immature. Browner; the crown and nape brown, streaked with greyish white.

Young. Upper parts pale buff, streaked and spotted with ash and umber-brown; primaries blackish, edged with dull white; forehead and cheeks buffish white; underparts white; tail-feathers whitish, with ash-brown centres: bill livid brown, short, the upper mandible little shorter than the lower; tarsi and toes reddish brown.

Nestling when a few days old. Stone-grey, sparsely spotted with black above; underparts white. When older, the upper surface is pale fawn colour and the spots are few.

Hab. North America, chiefly on the eastern coast, from New Brunswick and Maine (casually) southward: breeding from New Jersey to Florida; in winter, Cuba, St. Croix, Cozumel I. off Yucatan, and the island of Trinidad. On the Pacific side from Acapam and Tehuantepec, along the coast of Mexico, to San Blas.

a. Pull. sk.	Cobb's I., Virginia, July 2 (*W. Brewster*).	H. Saunders Coll.
b–d. ♂ ♀ ad.; *e*. ♂ juv.; *f, g*. ♂ pull. sk.	Cobb's I., Va., Aug. 1 (*Henshaw*).	Salvin-Godman Coll.
h. ♂ imm. sk.	Georgia, April (*W. Brewster*).	H. Saunders Coll.
i. Ad. sk.	Florida (*C. J. Maynard*).	H. Saunders Coll.
k–t. ♂ ♀ ad. et vix ad. sk.	Corpus Christi Pass, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
u, v. ♀ imm. sk.	Tampico, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
w. ♀ imm. sk.	Rio Lagartos, N. Yucatan, June (*G. F. Gaumer*).	Salvin-Godman Coll.
x. Imm. sk.	Progreso, N. Yucatan, June (*G. F. G.*).	Salvin-Godman Coll.
y–z, a'–d'. Imm. sk.	Cozumel I., Yucatan, Feb. (*G. F. G.*).	Salvin-Godman Coll.
e'–i'. ♂ ♀ imm.; *k'*. ♀ juv. sk.	Acapam, Pacific coast, Jan. 29, 1863 (*O. Salvin*).	Salvin-Godman Coll.
l'. Skeleton.	N. America.	T. C. Eyton Coll.

2. Rhynchops intercedens.

Rayador, *Azara*, *Apunt.* iii. p. 329 (1802: Paraguay).

Rhynchops nigra (*nec L.*), *Neuwied*, *Beitr. Naturg. Bras.* iv. p. 877 (1833: Espirito Santo, South Brazil); *Darwin*, *Voy. 'Beagle,'* iii. p. 161 (1839: Uruguay Coast); *Gould, in Voy. 'Beagle,' Birds*, p. 143 (1841); *Hartl. Ind. Azara*, p. 26 (1847); *Burm. Th. Bras.* iii. p. 454 (1856: Coast); *id. Reis. La Plata*, ii. p. 520 (1861: Paranâ); *Scl. & Salv. P. Z. S.* 1871, p. 566 (revision Neotrop., partim); *iid. Nomencl. Av. Neotrop.* p. 147 (1873: partim); *Pelz. Orn. Bras.* p. 324 & p. 461 (1871: partim); *Berlepsch*, *J. f. O.* 1874, p. 279 (Sta. Catharina, S. Brazil); *Durnford*, *Ibis*, 1877, p. 200 (Buenos Ayres); *White*, *P. Z. S.* 1882, p. 628 (Buenos Ayres); *Berlepsch*, *J. f. O.* 1887, p. 37 & p. 126 (Paraguay).

Rhynchops melanura, *Scl. & Huds. Argent. Orn.* ii. p. 193 (1889).

Rhynchops intercedens, *Saunders*, *Bull. Br. Orn. Club*, no. xxv. p. xxvi (Mar. 1895).

Adult female. Similar to the female of the preceding species, with quite as much white on the wing and under-coverts; *differs* in having the tail-feathers merely bordered with white to the width of 0·15 inch on the outer webs, the greater part of the remainder brown on both sides of the shafts, and the middle rectrices almost wholly umber-brown; undersides of tail-feathers white, with a brown tinge at the tips. Total length 16·5 inches, culmen 2·65, genys 2·8, wing 14, tail 5, tarsus 1·1, middle toe with claw 1·1.

Nearly adult male. Similar, but with a browner tint and rather more white on the terminal portions of the four upper primaries; larger. Length 19 inches, culmen 4, genys 4·9, wing 16, tail 6, tarsus 1·45, middle toe with claw 1·3.

Immature. Similar, but the feathers of the upper parts of a more ashy brown, with paler edgings; a nuchal collar mottled brown and white.

Young. Lower forehead white, rapidly passing into warm buff on the crown, nape, and neck, which are thickly streaked with clove-brown, the streaks becoming confluent before and behind the eye; feathers of the mantle brown, broadly edged with buff; white band to secondaries conspicuous; primaries (except the three outer ones) tipped with white; tail pale brown, edged and tipped with buffish white; underparts white.

Hab. Coast of Southern Brazil and Argentina, the La Plata, the Paraná, and the Paraguay rivers, nearly to their heads.

a. ♀ ad. sk.	San Paulo, South Brazil.	W. Davis, Esq. [P.]. (Type of *R. intercedens.*)
b. ♂ imm. sk.	Santa Catharina, South Brazil, Aug. 4, 1883 (*H. M. Harrison, R.N.*).	H. Saunders Coll.
c. Juv. sk.	Buenos Ayres.	Alan Peel, Esq. [C.].
d. ♂ vix ad. sk.	Buenos Ayres, Nov.	H. Durnford [C.].

3. Rhynchops melanura.

Black Skimmer, and var. A, *Latham, Gen. Syn.* iii. pt. 2, pp. 347–8 (1785, partim).

Rhynchops nigra β, *Lath. Ind. Orn.* ii. p. 803 (1790: Guiana).

Rhynchops nigra, *Licht. Verz. Doubl.* p. 80 (1823: partim); *Lesson, Man. d'Orn.* p. 385 (1828: Chile); *Fraser, P. Z. S.* 1843, p. 119 (Chile); *Gray, List B. Brit. Mus.*, Anseres, p. 174 (1844); *Tsch. & Cab. Fam. Peruan., Aves*, pp. 53, 307 (1846: coast of Peru); *Schl. Mus. P.-Bas*, Sternæ, p. 39 (1863: South America); *Pelz. Reis. Novara*, p. 151 (1865: Chile); *Wyatt, Ibis*, 1871, p. 384 (Up. Magdalena Riv., Colombia); *Scl. & Salv. P. Z. S.* 1871, p. 566 (revision Neotropical); *Pelz. Orn. Bras.* pp. 324, 461 (1871); *Gray, Hand-l. B.* iii. p. 124 (1871: partim); *Allen, Bull. Harv. Coll.* iii. p. 359 (1872: Lake Titicaca); *Scl. & Salv. P. Z. S.* 1873, p. 310 (Upper Amazons); *id. Nomencl. Av. Neotrop.* p. 147 (1873: partim); *Pelz. Verh. z.-b. Ges. Wien*, 1873, p. 159 (Callao); *Taczan. & Berlepsch, P. Z. S.* 1885, p. 120 (Babahoyo, Ecuador).

Rhynchops cinerascens, *Spix, Av. Bras.* ii. p. 80, pl. cii. (1825); *Reichenb. Natat.* tab. xviii. fig. 255 (1848).

Rhynchops brevirostris, *Spix, Av. Bras.* ii. p. 80, pl. ciii. (1825); *Reichenb. Natat.* tab. xviii. fig. 256 (1848).

Rhynchops melanura, *Swains. Classif. B.* ii. p. 373 (1837); *id. An. in Menag.* p. 361 (1837); *Gray, Gen. B.* iii. p. 656 (1846); *Cab. in Schomb. Reis. Guiana*, iii. p. 761 (1848); *Reichenb. Natat. Novit.* lxviii. tab. cccxxxi. fig. 2623 (1850); *Licht. Nomencl. Av.* p. 97 (1854: Guiana); *Bp. C. R.* xlii. p. 773 (1856); *Scl. & Salv. P. Z. S.* 1866, p. 201 (Lower Ucayali); *id. op. cit.* 1867, p. 593 (Mexiana, Lower Amazons); *Pelz. Orn. Bras.* p. 461 (1871); *Taczan. P. Z. S.* 1874, p. 562 (Chorillos, Peru); *Saunders, P. Z. S.* 1882, p. 522 (Chile); *Taczan. Orn. Pérou*, iii. p. 437 (1886); *Berlepsch & Stolzm. P. Z. S.* 1892, p. 400 (Peru).

Rhynchops fulva (*nec L.*), *Boie, Isis*, 1844, p. 191 (Guiana).

Adult male in breeding-plumage. Similar to the preceding species, but with very little white at the edges of the secondaries and no

sign of white on the parapteral feathers; tail-feathers dark umber-brown on the upper surface, with very narrow whitish edges, the undersides brown; under wing-coverts smoke-brown. Total length 19·5 to 20·5 inches, culmen 4, genys 4·9, wing 16·5–17, tail 5·5–6, tarsus 1·4, middle toe and claw 1·3.

Adult female. Similar, but smaller, in the same proportions as in the former species.

Immature. Like the above, but with an irregular collar mottled with dull white, a mottled dark brown crown and nape; some brownish streaks on the cheeks and forehead.

Young. Forehead and cheeks dirty white, profusely streaked with brown; crown, nape, and upper surface dull umber-brown; the feathers of the mantle, wings, and tail bordered and tipped with buff and greyish white.

Hab. The large rivers of the northern part of South America, from their estuaries upwards, for thousands of miles—viz., the Magdalena and others, which empty into the Caribbean Sea, the Orinoco and tributaries, the Guiana rivers, the Amazons and tributaries, up to the Huallaga and the foot of the Andes. Obtained on Lake Titicaca in the High Andes. Coast of Chile from the Magellan Straits upwards; Peruvian coast; Guayaquil River up to Babahoyo. Once at Cozumel, off Yucatan.

The specimen in the Salvin-Godman Coll. from Cozumel has distinctly smoke-coloured under wing-coverts, and shows no trace of white on the parapteral feathers; the rectrices are chiefly dark, but the white on their edges is rather wider than in typical *R. melanura*, and so is the whitish band on the wing. The fact that the North American *R. nigra* visits Cozumel is not without significance.

a. Imm. sk.	Cozumel I., Yucatan, Feb. (*G. F. Gaumer*).	Salvin-Godman Coll.
b. Imm. sk.	Venezuela.	D. Dyson, Esq. [P.].
c. Ad. st.	British Guiana.	Sir R. Schomburgk [C.].
d. Ad. sk.	British Guiana (*H. Whitely*).	H. Saunders Coll.
e. ♀ juv. sk.	River Rupununi, Feb. (*H. W.*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Ourumei, Dec. (*H. W.*).	Salvin-Godman Coll.
g. Imm. sk.	Surinam (*Dr. Kirke*).	H. Saunders Coll.
h. ♀ ad. sk.	Mexiana, Lower Amazons, Dec. (*A. R. Wallace*).	Salvin-Godman Coll.
i. ♂ ad. sk.	Lower Ucayali, Peruvian Amazons.	E. Bartlett [C.].
k. ♀ ad. sk.	Upper Ucayali, Peruvian Amazons, May (*E. Bartlett*).	H. Saunders Coll.
l. ♂ juv. sk.	Yurimaguas, Huallaga R., Peruvian Amazons, Nov. (*E. B.*).	H. Saunders Coll.
m. Imm. sk.	Straits of Magellan.	The Admiralty [P.].
n. Imm. sk.	Chile (*H.M.S.* '*Blonde*').	Capt. Lord Byron, R.N. [P.].
o, *p*. Imm. sk.	Chile.	C. Crawley, Esq. [P.].
q. Ad. sk.	Chile (*E. C. Reed*).	H. Saunders Coll.

r. Imm. sk.	Chile (*E. C. R.*).	Salvin-Godman Coll.
s, *t*. Imm. sk.	Viña del Mar, near Valparaiso.	H. Berkeley James, Esq. [P.].
u. ♀ vix ad. sk.	Coquimbo Bay, Nov. (*Admiral A. H. Markham*).	H. Saunders Coll.
v. Imm. sk.	Callao Bay, Peru (*R. Jump*).	H. Saunders Coll.

4. Rhynchops flavirostris.

Rhynchops flavirostris*, *Vieill. N. Dict. d'Hist. Nat.* iii. p. 383 (1816); *id. op. cit.* xxix. p. 283 (1819: Senegal); *id. Enc. Méth.* i. p. 351 (1820: Senegal); *Stephens, Shaw's Gen. Zool.* xiii. pt. 1, p. 138 (1826); *Lesson, Traité*, p. 624 (1831); *Vieill. Gal. Ois.* ii. p. 237, pl. 291 (1834: Senegal); *Rüpp. Syst. Uebers.* p. 139 (1845: Nubia and Senaar); *A. E. Brehm, J. f. O.* 1854, p. 85; *id. op. cit.* 1855, p. 378; *Heugl. Syst. Uebers.* p. 70 (1856: White Nile); *Bp. C. R.* xlii. p. 773 (1856); *Heugl. Ibis*, 1859, p. 349 (Dahalak Is., Red Sea); *id. in Peterm. Mitth.* 1861, p. 29 (Red Sea); *A. E. Brehm, Reis. Habesch*, iii. p. 143 (1863); *Schl. Mus. P.-Bas*, Sternæ, p. 40 (1863); *Kirk, Ibis*, 1864, p. 337 (Upper Zambesi and Shiré); *Finsch & Hartl. Vög. Ostafr.* p. 837 (1870); *Gray, Hand-l. B.* iii. p. 124, no. 11094 (1871); *Gurney in Anderss. B. Dam. Ld.* p. 365 (1872: Lake Ngami); *Shelley, B. Egypt*, p. 302, pl. xiv. (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1463 (1873); *Ussher, Ibis*, 1874, p. 75 (Gold Coast); *Reichenow, J. f. O.* 1874, p. 373 (Gold Coast); *id. op. cit.* 1877, p. 11 (Loango); *Buchholz, Reis. West-Afr.* p. 152 (1880: Camaroons); *Sharpe, ed. Layard's B. S. Afr.* p. 706 (1884); *Bocage, Orn. Angola*, p. 515 (1881); *Holub & von Pelz. Beitr. Orn. Südafr.* p. 333 (1882); *Büttik. Notes Leyden Mus.* 1885, p. 251 (Liberia); *Böhm, J. f. O.* 1885, p. 66 (Tanganyika); *Fischer, t. c.* p. 114 (Tana River); *Hartert, op. cit.* 1886, p. 612 (Niger and Benue); *Matschie, op. cit.* 1887, p. 137; *Tristr. Cat. Coll. B.* p. 10 (1889: Egypt); *Shelley, Ibis*, 1893, p. 29 (R. Shiré, Nyassaland); *Sharpe, Bull. Brit. Orn. Club*, no. xi. p. v (1893: Suakin); *Reichenow, Vög. Deutsch-O.-Afr.* p. 21 (1894: Tanganyika).

Rhynchops niger, *Leach in Tuckey's Exped. Congo*, App. p. 408 (1818).

Rhynchops albirostris, *Licht. Verz. Doubl.* p. 80 (1823: Nubia); *Boie, Isis*, 1844, p. 191 (Red Sea); *Gray, Gen. B.* iii. p. 656 (1846); *Licht. Nomencl. Av.* p. 97 (1854: Egypt).

Rhynchops orientalis, *Cretzschm. in Rüpp. Atlas*, p. 37, tab. 24 (1826); *Fraser, P. Z. S.* 1843, p. 52 (Nun River); *Gray, List B. Brit. Mus.*, Anseres, p. 174 (1844: Niger); *Reichenb. Natat.* tab. xviii. fig. 402 (1848); *Allen & Thomps. Exp. Niger*, i. p. 167 (1848); *Hartl. Orn. W.-Afr.* p. 257 (1857: Senegambia); *Cassin, Pr. Philad. Acad.* 1859, p. 176 (Camma R., W. Africa); *Antin. Cat. descr. Ucc.* p. 116 (1864: Egypt).

Adult male in breeding-plumage. Forehead, cheeks, throat, breast, and abdomen white; crown, nape, and mantle deep umber-brown; the outer portions of the primaries rather darker and the shafts blackish; most of the secondaries edged with white for about 0·3

* Originally *Rhyncops flavirostris*, and ascribed to Australia.

inch, chiefly on the outer webs; tail-feathers brown in the centres and on the inner webs, chiefly whitish on the outer webs; under wing-coverts smoke-brown: bill vermilion to deep orange-yellow on the upper mandible, the under mandible paler yellow, especially towards the extremity: "irides brown" (*Shelley*); tarsi and toes vermilion, drying orange-yellow. Total length 17 inches, culmen 3, genys 4, wing about 14, tail 5·25, tarsus 1·1, middle toe with claw 1·1.

Adult female. Similar, but smaller; culmen 2·5, genys 3·1, wing 13, tail 5, tarsus 1.

Adult in winter. Similar, but with an ill-defined band of dull white streaked with brown on the nape; the upper primaries, when new, are edged with brownish white, which soon wears off.

Immature. Like the above, but the forehead a trifle streaked with grey; the bill ochraceous yellow at the base and blackish on the anterior half.

Young. Similar, but duller brown above, and with greyish tips to the feathers of the mantle and rectrices.

Hab. Coast and rivers of West Africa from Senegal to Damaraland; across to the East side and along it; throughout the Lake Regions and the Nile system down to Damietta; also the Red Sea.

a–c. ♂ ad. sk	Egypt (*G. E. S.*).	Shelley Coll.
d. ♀ ad. sk.	Egypt (*G. E. S.*).	H. Saunders Coll.
e. ♀ ad. sk.	Damietta, Egypt (*Filipponi*).	Shelley Coll.
f, g. ♀ ad. sk.	Tani, Soudan, April 1885.	Capt. W. Verner [P.].
h. Ad. sk.	5th Cataract, Nile.	F. Galton, Esq. [P.].
i. Ad.; *k.* Juv. sk.	Suakin, Red Sea.	Capt. R. H. Penton [P.].
l, m. ♂ ♀ ad.; *n.* Imm. sk.	Upper Shiré, Nyasaland, Feb. (*A. Whyte*).	H. H. Johnston, C.B. [P.].
o. Ad. sk.	Lower Shiré Valley (*Sir J. Kirk*).	Livingstone Exped.
p, q. Ad. sk.	Niger River.	Mrs. Heywood [P.].

5. Rhynchops albicollis.

? Rhynchops madraspatanus, *J. R. Forster, Indische Zool.* p. 42 (1781: nomen nudum).

Rhynchops albicollis, *Swains. An. in Menag.* p. 360 (1838); *Gray, Gen. B.* iii. p. 656, pl. 181 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 290 (1859); *Bp. C. R.* xlii. p. 773 (1856); *Irby, Ibis*, 1861, p. 246 (Oudh and Kumaon); *Gray, Cat. Mamm. &c. Nepal pres. Hodgs.* p. 78 (1863); *Schl. Mus. P.-Bas*, Sternæ, p. 40 (1863); *Jerd. B. India*, iii. p. 847 (1864); *Gray, Hand-l. B.* iii. p. 124, no. 11093 (1871); *Hume, Str. F.* i. p. 286 (1873: Sind); *Adam, op. cit.* ii. p. 440 (1874: Rajmehal, Ganges); *Hume, op. cit.* iii. p. 193 (1875: Upper Pegu); *id. Nests & Eggs Ind. B.* p. 656 (1875); *Blyth & Wald. B. Burm.* p. 164 (1875); *Butler, Str. F.* iv. p. 32 (1876: N. Guzerat); *A. Anderson, P. Z. S.* 1877, p. 807 (nestlings); *W. Ramsay, Ibis*, 1877, p. 472 (Sittang River); *Hume & Davison, Str. F.* vi. p. 493 (1878); *Davidson & Wenden, op. cit.* vii. p. 93 (1878: Deccan); *Hume, t. c.* p. 99 (Oodeypore); *V. Ball, t. c.* p. 233; *J. R. Cripps, t. c.* p. 314 (E. Bengal); *Hume, op. cit.*

viii. p. 116 (1879): *Legge, B. Ceylon*, p. 1004, footnote (1880: never obtained in Ceylon); *Salvin, Cat. Strickl. Coll.* p. 627 (1882: Madras); *Oates, Handb. B. Brit. Burm.* ii. p. 436 (1883); *Tristr. Cat. Coll. B.* p. 10 (1889: Burma); *Oates, 2nd ed. Hume's Nests & Eggs Ind. B.* iii. p. 316 (1890).

Rhynchops nigra, *Burgess, P. Z. S.* 1855, p. 184 (Bhima, India; nesting described).

Adult male in breeding-plumage. Forehead, cheeks, and underparts white; crown and nape dark brown; from the nape, extending to the shoulders, a well-defined white band about 1·5 inches wide; mantle dark brown; parapteral feathers edged with white on both webs: most of the secondaries broadly (0·75 in.) edged with white; the four upper primaries whitish towards their extremities, the rest dark brown; tail-feathers white, except the central pair, which are clove-brown on the inner webs; under wing-coverts pale smoke-colour: bill orange-yellow, brighter on the culmen; irides dark brown; tarsus and toes orange-red. Total length 16·5 inches, culmen 3·25, genys 3·6, wing 15·5, tail 5, tarsus 1·1, middle toe and claw 1·1.

Adult female. Alike in plumage, but smaller: culmen 2·65 in., genys 3·1, wing 14, &c.

Immature. Similar, but the upper parts of a paler brown, the feathers of the crown and mantle tipped with grey; the mandibles dull yellow to horn-colour.

Young. Forehead streaked with brown; feathers of the upper surface brown, tipped and mottled with buffish white or grey; rectrices brown at the tips and with pale brown shafts.

Hab. The large rivers of India, from the Punjab and Nepal southward, but not in Ceylon; Lower Burma, but not in Yunnan or Malacca.

a. Ad. sk.	India.	Williams Coll.
b, c. Ad. sk.	Moultan (*Capt. Tweedie*).	Gould Coll.
d. ♂ ad. sk.	Jhelum River, Nov.	Hume Coll.
e–g. Ad. sk.	N.W. India (*Capt. S. P.*).	Pinwill Coll.
h. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
i. Juv. sk.	Behar.	B. H. Hodgson, Esq. [P.].
k–n. ♂ ♀ ad. sk.	Futtehgurh, May (*A. Anderson*).	Seebohm Coll.
o, p. Ad. sk.	Futtehgurh (*A. Anderson*).	H. Saunders Coll.
q–t. ♂ ad. sk.	Etawah, Aug., Dec.–Jan.	Hume Coll.
u. ♂ ad. sk.	Allahabad, March.	Hume Coll.
v. Ad. sk.	Dacca.	Hume Coll.
w. Ad. sk.	Madras.	R. Cole, Esq. [P.].
x. Ad. sk.	Burma (*Capt. H. Feilden, R.A.*).	Tweeddale Coll.
y, z, a', b'. ♂ ♀ ad. sk.	Tonghoo, March–May (*R. G. Wardlaw-Ramsay*).	Tweeddale Coll.
c'. ♂ ad. sk.	Boulay, Thayetmyo, March (*E. W. Oates*).	Hume Coll.
d'. ♂ ad. sk.	Boulay, Thayetmyo, March (*E. W. O.*).	Oates Coll.
e', f'. ♂ ad. sk.	Salween River, Feb. (*W. Davison*).	Hume Coll.

Subfamily III. LARINÆ.

Key to the Genera.

a. Tail considerably forked; wings long; hind toe very small, free ..... 13. XEMA, p. 161.
b. Tail cuneate, the central pair of rectrices fully 0·8 in. longer than the next pair and 1·9 in. longer than the outermost ..... [p. 167. 14. RHODOSTETHIA,
c. Tail square, or very nearly so.
a'. Hind toe moderately or well developed, free; lower third of tibia bare.
a''. Bill always more than twice and usually about three times as long as it is deep; nostrils linear or linear-ovate ..... 15. LARUS, p. 169.
b''. Bill very short, the length barely twice its depth, stout, compressed anteriorly; nostrils very small, ovate .... 16. GABIANUS, p. 297.
b'. Hind toe joined to the inner toe by a rugose membrane; foot coarse, strong, the webs considerably indented; bill very short, obtuse ..... [p. 299. 17. LEUCOPHÆUS,
c'. Hind toe joined to the inner by a strong serrated membrane; all the nails large and curved, webs and toes rugose; tibia feathered nearly to the joint ..... 18. PAGOPHILA, p. 301.
d'. Hind toe obsolete or rudimentary; tarsus much shorter than the middle toe with the claw; tail with a slight tendency to furcation ..... 19. RISSA, p. 305.

13. XEMA.

	Type.
Xema, *Leach in J. Ross's Voy. Baff. Bay*, App. ii. p. lvii, cum tab. (1819)	X. sabinii.
Creagrus, *Bp. Naumannia*, 1854, p. 213	X. furcata.
Chema, *Reichenow, J. f. O.* 1889, p. 188	X. sabini.

Range. Arctic regions, and down to 14° S. lat. on the American side of the Pacific.

Key to the Species.

a. Smaller, wing 10·75 in.; bill rather short; entire head deep slate-grey, terminating in a dark black collar ..... *sabinii*, p. 162.
b. Larger, wing 16 in.; a white band at the base of the bill; head sooty black, with no terminal collar ..... *furcata*, p. 165.

1. Xema sabinii.

Larus sabinii *, *J. Sabine, Trans. Linn. Soc.* xii. p. 520, pl. 29 (1818: islands near Discö, breeding); *E. Sabine, tom. cit.* p. 551 (1819); *Leach, Thomson's Ann. of Philos.* xiii. p. 61 (1819: Discö); *E. Sabine, Suppl. App. Parry's 1st Voy.* p. ccv (1821: Prince Regent's Inlet); *Parry's Narr. 2nd Voy.* pp. 254 & 301 (1825: Melville Peninsula); *Richardson, t. c.*, App. p. 360; *id. loc. cit.* (Spitsbergen, *teste* E. Sabine); *Macgill. Mem. Wern. Soc.* v. p. 249 (1826); *J. C. Ross, App. Parry's 4th Voy.* p. 195 (1828: Waigatz Str., Spitsbergen); *Werner, Atlas, Palmipèdes*, pl. 30 (1828); *J. Wilson, Ill. Ornith.* pl. iii. (1831); *Swains. & Richards. Faun. Bor.-Amer., Birds*, p. 428 (1831); *Nuttall, Man. Orn.* ii. p. 296 (1831); *J. C. Ross, App. John Ross's 2nd Voy.* p. 37 (1835); *Jenyns, Man. Brit. Verteb.* p. 270 (1835); *Audub. Orn. Biogr.* iii. p. 561 (1835); *id. Synop.* p. 323 (1839); *id. B. N. Amer.* 8vo ed. vii. p. 127, pl. 441 (1839); *Temm. Man. d'Orn.* éd. 2, 4me pte, p. 488 (1840); *Keys. & Blas. Wirb. Eur.* pp. xcv & 240 (1840); *Selys-Longch. Faun. Belg.* p. 152 (1842); *Giraud, B. Long Isl.* p. 362 (1844); *Schl. Rev. Crit.* p. cxxviii (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 537 (1845); *Degl. Orn. Eur.* ii. p. 331 (1849); *Thomps. B. Irel.* iii. p. 309 (1851); *Middend. Reis. Sibir., Zool.* p. 244, taf. xxiv. fig. 5, pull., taf. xxv. fig. 1, egg (1853); *Meyer, Brit. B.* vii. p. 115, pl. 299 (1857); *Naum. Vög. Deutschl., Anhang*, xiii. p. 272, taf. 272. figs. 3, 4 (1860); *Schl. Mus. P.-Bas*, Lari, p. 44 (1863); *Harting, B. Middlesex*, p. 251 (1866); *Degl. & Gerbe, Orn. Eur.* ii. p. 443 (1867); *Borggr. Vogelf. Norddeutschl.* p. 141 (1869); *Harting, Handb. Brit. B.* p. 171 (1872); *E. Adams, Ibis*, 1878, p. 440 (Alaska); *Feilden (ex R. Anderson), Zool.* 1879, p. 8 (Cambridge Bay, Victoria Ld., breeding); *Marmottan & Vian, Bull. Soc. Zool. Fr.* 1879, p. 249 (Croter, adult); *Rodd, B. Cornw.* p. 166 (1880); *Bunge, Mél. Biol.* xii. livr. 1, p. 53 (1884: Lena delta); *Seebohm, Brit. B.* iii. p. 298 (1885); *Stevenson & Southw. B. Norfolk*, iii. p. 319 (1890); *Gätke, Vogelw. Helgol.* p. 579 (1891).

Larus collaris, *E. Sabine, Tr. Linn. Soc.* xii. p. 551 (1819: MS. name for a bird in the Vienna Mus., which is *Rhodostethia rosea*).

Xema sabinii, *Leach, in J. Ross's Voy. Baff. Bay*, App. ii. p. lvii, cum tab. (1819: 4to ed., not the 8vo); *Brehm, Lehrb.* p. 699 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 177, pl. 20 (1826); *Kaup, Natürl. Syst.* pp. 66–67, p. 196 (1829); *Eyton, Rarer Brit. B.* p. 54 (1836); *Gould, B. Eur.* v. pl. 429 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *id. Cat. Occ. Eur.* p. 77 (1842); *Gray, List Gen.* p. 78 (1840); *id. op. cit.* ed. 1841, p. 99; *id. List B. Brit. M.*, Anseres, p. 171 (1844); *id. Gen. B.* iii. p. 655, pl. 180. fig. 3 (1846); *Reichenb. Syst. Nat.* tab. v. (1850); *id. Av. Syst. Nat., Longip.* pp. iv, v (1852); *Richardson, Journ. Boat Voy.* i. p. 262 (1851: 130° W., 70° N., breeding); *Bolsm. Naum.* 1853, p. 451 (Westphalia); *Brehm, Naum.* 1855, p. 294; *Bruch, J. f. O.* 1855, p. 292; *Bp. C. R.* xlii. p. 771 (1856); *Baird, Cass., & Lawr. B. of N. Amer.* p. 857 (1858); *Reinh. Ibis*, 1861, p. 19 (Greenland); *Gray, Cat. Brit. B.* p. 236 (1863); *Dall & Bann. Tr. Chic. Acad.* i. p. 306 (1869: Alaska); *Fritsch, Vög. Eur.* p. 465, tab. 55. fig. 4 (1870); *Gray, Hand-l. B.* iii. p. 117, no. 11013 (1871); *Newton, P. Z. S.* 1871, p. 57, pl. iv. fig. 5 (egg); *Allen, Bull. Harv. Coll.* iii. p. 183 (1872: Gt. Salt Lake); *Coues, Key N. Amer. B.* p. 317 (1872);

* The specific name is also given as *sabini* and *sabinei*; I have placed all under one head.

Sundev. Meth. Nat. Av. disp. Tent. p. 136 (1872); *Feild. Zool.* s. s. p. 3287 (1872: Færoes); *Gould, B. Gt. Brit.* v. p. 67 (1873); *Dresser, B. Europe*, viii. p. 337, pl. 593 (1874); *Coues, B. N.-West*, p. 660 (1874); *Hensh. Ann. Lyc. N. Y.* xi. p. 13 (1874: Utah); *Newton, Arct. Man.* p. 105 (1875); *Bessels, Bull. Soc. Géogr. Paris*, 1875, p. 296 (Polaris Bay); *id. Amerik. Nord-Pol. Exped.* p. 312 (1879); *Reid, Zool.* 1877, p. 490 (Bermudas); *Scl. & Salv. P. Z. S.* 1878, p. 141 (Tumbes, Peru); *Saunders, tom. cit.* p. 209 (revision Larinæ); *id. Journ. Linn. Soc.* xiv. p. 400 (1878: distribution); *Kumlien, Bull. U.S. Nat. Mus.* xv. p. 101 (1879: Davis Str.); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Clarke, Handb. Yorks. Verteb.* p. 81 (1881); *Maynard, B. East. N. Amer.* p. 487 (1881); *Coues, Check-l. N. Amer. B.* p. 122 (1882); *Saunders, P. Z. S.* 1882, p. 524 (Callao Bay); *Stearns & Coues, New Engl. Bird-life*, p. 353 (1883); *Nelson, Cruise 'Corwin,'* p. 109 (1883); *B. O. U. List Brit. B.* p. 193 (1883); *Bidwell, Proc. Roy. Phys. Soc. Edinb.* p. 131 (1884), and *Saunders, P. Z. S.* 1884, p. 150 (adult in breeding plumage, I. of Mull); *id. 4th ed. Yarr. Brit. B.* iii. p. 573 (1884); *Dowling, Zool.* 1884, p. 490 (Dublin Bay); *Coues, Key N. Amer. B.* 2nd ed. p. 753 (1884); *Baird, Brew., & Ridgw. Water-B. N. Amer.* ii. p. 269 (1884); *Murdoch, Exped. Point Barrow*, p. 125 (1885); *Homeyer, Ornis*, 1885, p. 81; *A. O. U. Check-l. N. Amer. B.* p. 91 (1886); *Goss, B. Kansas*, p. 2 (1886); *Turner, Contrib. N. H. Alaska*, p. 126 (1886); *Fischer & Pelz. Mittheil. orn. Ver. Wien*, no. 18 (1886: Jan Mayen I.; transl., *W. E. Clarke, Zool.* 1890, p. 51); *Taczan. Orn. Pérou*, iii. p. 456 (1886); *Ridgw. Man. N. Amer. B.* p. 38 (1887); *Nelson, Rep. N. H. Alaska*, p. 56 (1887: breeds); *Palmén, Orn. 'Vega' Exped.* p. 351 (1887: Taimyr Pen.); *MacFarl. Ibis*, 1887, p. 207 (Callao Bay); *H-Brown & Buck. Faun. Sutherl. & Caithn.* p. 229 (1887); *Feilden, Tr. Norw. Soc.* iv. p. 351 (1887: York Factory, Hudson B.); *Cooke, Mig. B. Mississippi Vall.* p. 57 (1888); *Greely, Rep. U.S. Exped. L. Frankl. Bay*, ii. p. 22 (1888: Grinnell Ld.); *Tristr. Cat. Coll. B.* p. 8 (1889); *Saunders, Man. Brit. B.* p. 641 (1889); *Riesenth. Wasservög. Mitteleurop.* p. 138 (1889); *Miller, Auk*, 1890, p. 227 (Cape Cod); *M. Chamberl. ed. Hagerup's B. Greenl.* p. 47 (1891); *Borrer, B. Sussex*, p. 261 (1891); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 419 (1891: Franklin Bay, breeding); *Shufeldt, Auk*, 1891, p. 366 (Oregon, fossil); *id. Journ. Ac. Nat. Sci. Philad.* xi. p. 424 (1892); *Berl. & Stolzm. P. Z. S.* 1892, p. 400 (Peru); *D'Urb. & Mathew, B. Devon*, p. 387 (1892); *H-Brown & Buckl. Fauna Argyll &c.* p. 188 (1892); *Allen, Auk*, 1893, p. 123 (distribution); *Blaauw, Ibis*, 1893, p. 150 (Holland); *Taczan. Mém. Ac. St. Pétersb.* xxxix. p. 1046 (1893: E. Siberia); *Collett, Norges Fuglef., Nyt Mag. f. Naturv.* Bd. xxxv. p. 314 (1894).

Xema collaris (*Schreibers*), *Leach, in* 8vo *ed. J. Ross, Voy. Baff. Bay*, ii. p. 165 (1819: not *Larus collaris*, Schreibers MS. in Vienna Mus., which is *Rhodostethia rosea*); *Olphe-Gall. Contrib. Faune Orn. Eur. Occid.* fasc. x. p. 108 (1886).

Gavia sabini, *Macgill. Man. Br. Orn.* ii. p. 241 (1842); *id. Br. B.* v. p. 607 (1852).

Sabine's Gull, *Yarr. Brit. B.* iii. p. 421 (1843).

Larus minutus, *Bolsmann, Naum.* 1852, Bd. ii. Hft. iii. p. 35 (Westphalia).

Chema sabinii, *Reichenow, J. f. O.* 1889, p. 188; *id. Syst. Verz. Vög. Deutschl.* p. 62 (1889); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 360 (1890); *Hartert, Katal. Vogelsamml. Senck.* p. 243 (1891).

Adult in breeding-plumage. Head and upper neck dark slate-colour, terminated by a narrow deep black collar; mantle slate-grey, much lighter than the head; the inner secondaries merely tipped with white, the rest of the secondaries and the five upper primaries almost wholly white; the remaining primaries black on both sides of the shafts, with conspicuous white tips and broad white margins along the greater part of the inner webs; edge of wing to the carpal joint black; tail, and the underparts up to the collar, white: bill black to the angle, chrome-yellow anteriorly; inside of the mouth vermilion; iris dark brown; a narrow vermilion ring round the eye, beneath which is a minute white speck; tarsi and toes brown to blackish. Total length 13 inches, culmen 1·35, wing 10·75, tail 4·75, depth of fork 1, tarsus 1·4, middle toe with claw 1·35. The sexes appear to be alike in size and plumage.

In examples a year younger the white tips to the outer primaries are less conspicuous, and there is a considerable amount of black on the sixth primary from the outside. In specimens from Alaska the tarsi and toes are darker than in birds from Greenland.

Adult in winter (Callao, Peru; Dec.). Similar, but head white, with grey streaks which coalesce on the nape and hind neck, producing a greyish-black appearance; quills worn and faded in colour, and their tips abruptly broken off, as if cut artificially: bill duller in colour; tarsi brown. By the beginning of April the new primaries, with broad white tips, are fully developed, and the head is plentifully sprinkled with slate-grey.

Immature (nearly two years old). Head chiefly slate-grey, mottled with white, especially on the throat, collar ill-defined; rectrices slightly tipped with ash: bill with very little yellow anteriorly.

Young. Forehead dull white; head grey, mottled with buff; feathers of the upper parts ash-grey, with edges which are buffish at first, and become greyish with increasing age; rectrices broadly tipped with black; underparts chiefly white; on the sides of the neck an ash-brown band, which is seldom complete and exceedingly variable in extent: bill horn-brown; tarsi and toes flesh-colour to brownish.

Hab. Entire Circumpolar regions in summer. In winter as far as the Bermudas and South Texas on the Atlantic side; in the Pacific down to 12° S., on the coast of Peru, in great numbers; thus considerably overlapping the Galápagos Islands, the head-quarters of the next species, *X. furcata*.

a. Juv. st.	Mount's Bay, Cornwall, autumn.	Vingoe Coll.
b–d. Ad. st.	"Arctic Seas."	Purchased.
e. Ad. sk.	Sabine's Is., above Discö, lat. 75° 29′ N., long. 60° 9′ W., July 25th, 1818.	General Sir Edward Sabine [P.]. (Type.)
f. Ad.; *g.* Juv. sk.	Discö Bay, Greenland (*E. Whymper*).	H. Saunders Coll.
h. Juv. sk.	Mouth of the river Clyde, Baffin Land, 70° 20′ N., 68° W., Aug. 20th (*J. B. Walker, 'Erik'*).	H. Saunders Coll.

i. ♀ vix ad. sk.	Cumberland Gulf, Baffin Ld., June 15th, 1884 (*J. Henderson*).	H. Saunders Coll.
k. ♀ ad. sk.	Arctic Coast, east of Fort Anderson, July (breeding) (*R. R. MacFarlane*).	Salvin-Godman Coll.
l, *m*. Ad. sk.	Cambridge Bay, Victoria Ld., (*R. Anderson, H.M.S. 'Enterprise'*).	Capt. Collinson, R.N. [P.].
n, *o*. Vix ad. sk.	North-west America, summer.	Capt. Kellett, R.N., C.B. [P.].
p. Ad. sk.	Stewart I., Alaska, July (*E. W. Nelson*).	Salvin-Godman Coll.
q. ♂ ad. sk.	St. Michael's, Alaska (*L. M. Turner*).	Salvin-Godman Coll.
r–i'. ♂ ♀ ad., vix ad., et juv. sk.	St. Michael's, Alaska, June (*E. W. Nelson*).	Salvin-Godman Coll.
k'. ♀ ad. sk.	St. Michael's, Alaska, June (*E. W. Nelson*).	H. Saunders Coll.
l'. ♂ ad. sk.	Corpus Christi, Texas, Oct. (*F. B. Armstrong*).	Salvin-Godman Coll.
m', *n'*. ♀ vix ad. sk.	Callao Bay, Peru, Dec. 1881 (*Admiral A. H. Markham*).	H. Saunders Coll.
o', *p'*. Vix ad. sk.	Callao Bay, Peru, April (*Commr. J. R. H. MacFarlane*).	H. Saunders Coll.
q. Skeleton.	"Arctic Seas."	Purchased.

2. Xema furcata *.

Mouette à queue fourchue, *Néboux, Rev. Zool.* 1840, p. 290.

Larus furcatus, *Néboux, Voy. 'Vénus,' Atlas*, pl. x. (1846); *Prévost & Des Murs, Voy. 'Venus,' Ois.* p. 277 (1855).

Xema furcatus, *Bruch, J. f. O.* 1853, p. 103 (revision).

Creagrus furcatus, *Bp. Naumannia*, 1854, p. 213; *id. C. R.* xlii. p. 771 (1856); *Bruch, J. f. O.* 1855, p. 292; *Baird, Cass., & Lawr. B. N. Amer.* p. 857 (1858: not in California); *Salvin, Trans. Zool. Soc.* ix. p. 506 (1876: Galápagos Is.); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *id. Pr. U.S. Nat. Mus.* xii. p. 117 (1889: Chatham I., Galápagos Group); *Lucas, Pr. U.S. Nat. Mus.* xiii. p. 130 (1891: skeleton, Chatham I.); *Ridgw. t. c.* p. 311; *Edd. Auk*, 1891, p. 88 & p. 402 (Chatham I.).

Xema furcatum, *Gray, Hand-l. B.* iii. p. 117, no. 11014 (1871); *Coues, Key N. Amer. B.* p. 317 (1872); *id. B. N.-West*, p. 661 (1874); *Saunders, P. Z. S.* 1878, p. 213 (revision); *id. op. cit.* 1882, p. 523, pl. xxxiv. (Paracas Bay, Peru); *Taczan. Orn. Pérou*, iii. p. 457 (1886).

Xema furcata, *Coues, Check-l. N.-Amer. B.* p. 122 (1882); *id. Key N. Amer. B.* 2nd ed. p. 753 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 273 (1884); *Ridgw. Man. N. Amer. B.* p. 38 (1887).

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* At one time Gray and others seem to have believed that the word *Xema* was a genuine Greek substantive, neuter; but it appears to be a purely fanciful word with an apparently feminine termination.

Adult (Dalrymple Rock, Chatham I., Galápagos; January). At the base of the upper mandible a white band of about 0·3 inch wide; the rest of the head and the neck sooty black, dark and sharply defined on the throat, but passing on the upper neck into the paler smoke-grey of the mantle; parapteral feathers narrowly edged with white; edge of wing from the carpal joint and the greater part of the secondaries white, the long inner secondaries grey; the four outer primaries black on both sides of their shafts, but the greater part of the inner webs white; the fifth and sixth primaries black on the terminal portion only, the extreme tips white; the upper quills greyish white; tail and underparts white: bill chiefly black, the terminal third yellowish horn-colour, the upper mandible decurved; "eyelids orange-red, iris carmine; tarsi and toes deep red" (*Ridgway*). Total length about 20 inches, culmen 2·25, wing 16·25, tail 7·75, depth of fork 3, tarsus 1·95, middle toe with claw 2·15.

In the type specimen in the Paris Museum there is more grey on the upper breast, and this appears to be also the case in the pair of birds obtained at Chatham I. in April 1888, described by Mr. Ridgway. It is not improbable that this is the real breeding-plumage, and that the specimen in the British Museum is approaching its moult, for the flight-feathers are somewhat abraded, and there are slight indications of white at the base of the under mandible.

Young (♂. Paracas Bay, Peru; Oct. 1881). Head white, with pale brown streaks on the lores, and darker confluent markings in front of and round the eyes; a clove-brown patch on the auricular; feathers of the neck and mantle broadly barred with ash- to umber-brown and tipped with white; the long inner secondaries with brown centres and with some grey on the outer webs; the other secondaries and the wing upwards to the carpal joint white; primaries as in the adult; rump grey, mottled with brown; tail-feathers white, broadly banded with brown (except the outer pair, which have merely brown tips) and all of them edged with white; underparts white: bill blackish, the lower mandible dark horn-colour; iris brown; tarsi and toes clay-brown (probably flesh-colour in the living bird).

Hab. Chatham Island, Galápagos group (head-quarters); once at Paracas Bay, in about 14° S. lat., Peru. The type, in the Paris Museum, was obtained during the voyage of the French corvette 'Vénus,' and is ascribed by Néboux to Monterey, California, where the species has been vainly sought for more than forty years. The fact that the 'Vénus' also visited the Galápagos is not devoid of significance.

a. Ad. st.	Dalrymple Rock, Chatham Island, Galápagos, 11th–16th Jan.	Capt. Kellett, C.B., & Lt. Wood, R.N. [P.].
b. ♂ juv. sk.	Paracas Bay, Peru, Oct. (*Adml. A. H. Markham.*)	H. Saunders Coll.

14. RHODOSTETHIA.

	Type.
Rossia*, *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838) .	R. rosea.
Rhodostethia, *Macgill. Man. Brit. Orn.* pt. ii. p. 252 (1842)	R. rosea.
Rhodestethia, *Taczan. Mém. Ac. St. Pétersb.* xxxix. p. 1048 (1893)	R. rosea.

Range. Circumpolar: exceptionally to about 54° N. lat. in winter.

1. Rhodostethia rosea.

Larus roseus, *Macgill. Mem. Wern. Soc.* v. no. xiii. p. 249 (1824: Melville Peninsula); *Jard. & Selby, Ill. Orn.* i. pl. xiv. (1826); *Keys. & Blas. Wirb. Eur.* p. xcv & p. 420 (1840).

Larus rossii, *Richardson, App. Parry's 2nd Voy.* p. 359 (1825: Melville Peninsula, June 1823); *J. Wilson, Ill. Zool.* pl. viii. (1831); *J. C. Ross, App. Ross's 2nd Voy., Nat. Hist.* p. xxxvi (1835: Felix Harbour, Boothia); *Audub. Orn. Biogr.* v. p. 324 (1839); *id. Synopsis*, p. 323 (1839); *Sw. & Rich. F. Bor.-Am.*, ii. *Birds*, p. 427 (1831); *J. C. Ross, App. Parry's 4th Voy.* p. 195 (1828: Spitsbergen & Waigatz Str.); *Schl. Rev. Crit.* p. cxxviii (1844); *Degl. Orn. Eur.* ii. p. 332 (1849); *Yarr. Brit. B.* 2nd Suppl. p. 59 (1856); *id. op. cit.* 3rd ed. iii. p. 558 (1856); *Naum. Vög. Deutschl., Anhang*, xiii. p. 270, taf. 388. figs. 1–2 (1860); *Fischer, Natur. Tids.* (3) iii. (1864: Færoes; *cf. Ibis*, 1865, p. 103); *Harting, Handb. Brit. B.* p. 173 (1872); *Gould, P. Z. S.* 1872, p. 1; *Bunge, Mél. Biol.* xii. livr. 1, p. 57 (1884: Lena delta); *Seebohm, Hist. Brit. B.* iii. p. 305 (1885); *id. P. Z. S.* 1886, p. 82 (Discö, Greenland); *id. Tr. Norw. Soc.* iv. p. 303 (1886: Lena delta); *Gätke, Vogelwarte Helgol.* p. 580 (1891).

Larus richardsoni, *Lesson, H. N. Mam. et Ois.* ix. p. 516 (1837).

Rossia rosea, *Bp. Comp. List*, p. 62 (1838: type of genus); *id. Cat. Ucc. Eur.* p. 79 (1842); *Gray, List Gen.* p. 78 (1840); *id.* ed. 1841, p. 99.

Rhodostethia rossi, *Macgill. Man. Brit. Orn.* pt. ii. p. 253 (1842); *Gray, Gen. B.* iii. p. 653, pl. 180. fig. 4 (1846); *Macgill. Brit. B.* v. p. 618 (1852); *Reichenb. Syst. Nat.* tab. v. (1850); *id. Av. Syst. Nat., Longip.* pp. iv, v (1852); *Gray, Cat. Brit. B.* p. 229 (1862); *id. Hand-l. B.* iii. p. 111 (1871); *Gould, B. Gt. Brit.* v. pl. 63 (1873); *Bp. C. R.* xlii. p. 771 (1856); *Degl. & Gerbe, Orn. Eur.* ii. p. 403 (1867); *Feild. Zool.* s. s. p. 3287 (1872: Færoes); *Newton, P. Z. S.* 1875, p. 349 (Greenland).

Rhodostethia rosea, *Bruch, J. f. O.* 1853, p. 106 (Kamschatka); *Brehm, Naumannia*, 1855, p. 295; *id. Vogelf.* p. 344 (1855); *Baird, Cass., & Lawr. B. N. Amer.* p. 856 (1858); *Bp. Consp. Av.* ii. p. 230 (1857); *Reinh. Ibis*, 1861, p. 18 (Greenland); *Fritsch, Vög. Eur.* p. 471, tab. 57. fig. 9 (1870); *Sundev. Av. Meth. Tent.* p. 136 (1872); *Coues, Key N. Amer. B.* p. 316 (1872); *id. B. N.-West*, p. 659 (1874); *Newton, Arctic Man.* p. 105 (1875); *Saunders, Ibis*, 1875, p. 484 (juv., Kamschatka); *Payer, Austrian Exped.* ii. p. 91 (1876: Eng. trans.; Barents Sea); *Dresser, B. Eur.* viii. p. 343, pl. 594 (1877); *Feilden, Ibis*, 1878, p. 200; *Saunders, P. Z. S.* 1878, p. 208 (revision); *id. Journ. Linn. Soc.* xiv. p. 400 (1878: distribution); *Feilden, Tr. Norw. Soc.* iii. p. 209 (1881: Barents Sea); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *W. E.*

* Characters not given; moreover the name *Rossia* had been applied by Owen in 1835 to a genus of *Mollusca*.

Clarke, Handb. Yorks. Vertebr. p. 81 (1881); *Coues, Check-l. N. Amer. B.* p. 122 (1882); *Nelson, Cruise 'Corwin,'* p. 108 (1883: Alaska); *B. O. U. List Brit. B.* p. 192 (1883); *Saunders, Ibis*, 1883, p. 348 ('Vega' specimen); *Coues, Key N. Amer. B.* 2nd ed. p. 753 (1884); *Saunders, 4th ed. Yarrell's Brit. B.* iii. p. 572 (1884); *Baird, Brewer, & Ridgway, Water-B. N. Amer.* ii. p. 266 (1884); *Murdoch, Exped. Pt. Barrow*, p. 123, pls. i.–ii. (1885); *A. O. U. Check-l. N. Amer. B.* p. 91 (1886); *Ridgw. Man. N. Amer. B.* p. 37 (1887); *Nelson, Rep. Nat. Hist. Coll. Alaska*, p. 55, pl. iii. (1887); *Palmén, Vega-Exped.* p. 352 (1887: Pitlekaj); *Saunders, Man. Brit. B.* p. 643 (1889); *R. Gray, Zool.* 1889, p. 45 (Greenland Sea, 78° N., 0° 25′ E.); *M. Chamberl. ed. Hagerup's B. Greenl.* p. 47 (1891); *Allen, Auk*, 1893, p. 123 (distribution); *Lilford, Col. Figs. Brit. B.* pts. xxiii. & xvii. (1893).

Ross's Gull, *Long, Voy. 'Jeannette,'* p. 151 (1883: off Herald I., Bering Sea).

Rhodestethia rosea, *Taczan. Mém. Ac. St. Pétersb.* xxxix. p. 1048 (1893: E. Siberia).

Adult in summer plumage (Discö). Neck surrounded by a narrow black collar, otherwise the head and entire underparts white (suffused with pink in life); mantle and quills pearl-grey; the outer web of the first primary black, nearly to the tip, the other primaries grey like the mantle, paler on the inner margins; secondaries tipped with rosy white; rump and tail rosy white, the latter wedge-shaped; under wing-coverts grey: bill black; ring round the eye vermilion; tarsi, toes and their webs bright red. Total length 13·5 inches, culmen 1·1, wing 10·25, tail 5·25, central pair of feathers 0·8 in. longer than the next, and 1·9 longer than the outermost; tarsus 1·25, middle toe with claw 1·2.

Adult in winter. Similar, but without the black collar, and less suffused with rose-colour.

Immature. Head and underparts white; a few dark streaks round the eye; collar fairly defined, especially on the nape; shoulders pale grey, mantle pearl-grey; inner secondaries and upper wing-coverts smoke-brown, tipped with white, remaining secondaries pearl-grey, passing into white at their edges; the three outer primaries blackish on the webs on both sides of the shafts down to the tips and a little way up the inner webs, the rest of the webs white; in the 4th primary the centre is greyish white, with a dark subterminal bar; on the inner quills the white increases successively until the 9th is wholly white; tail pure white.

Young (September 21st). Similar, but crown distinctly pearl-grey, with sometimes a dark feather or two indicative of a hood, and also an approach to a greyish collar; more black about the orbits, and a strongly marked patch on the auriculars; more blackish brown on the wing-coverts and inner secondaries, which are tipped with greyish to buffish white; rump barred with dark brown; tail-feathers chiefly white, with blackish-brown terminations to all except the outer pair or two. This dark band decreases rapidly with advancing age in the feather, and by the following spring it is almost confined to the two central pairs of rectrices. Tarsi and toes brown.

Hab. Arctic regions:—N.W. Greenland (Discö); Melville Penin-

sula; Boothia; Point Barrow, N. Alaska, coming from the direction of Herald I.; St. Michael's, Alaska (once); icy sea from Bering Strait to the mouth of the Lena; Barents Sea, between Franz-Josef Land and Spitsbergen, including the latter; Færoe Is. (once); Yorkshire (once); Heligoland (once). Propagation as yet unknown.

a. Ad. st.	Greenland, summer.	H. Seebohm, Esq. [P.].
b. ♂ juv. sk.	Point Barrow, Alaska, Sept. 1882 (*U.S. Nat. Mus.*).	H. Saunders Coll.
c, ♂; *d*, *e*. ♀ juv. sk.	Point Barrow, Alaska, Sept. 1882 (*U.S. Nat. Mus.*).	Salvin-Godman Coll.

15. LARUS.

	Type.
Larus, *Linn. Syst. Nat.* i. p. 224 (1766).	
Xema, *Boie, Isis*, 1822, p. 563; *id. op. cit.* 1844, p. 192 (partim).	
Gavia, *Macgill. Man. Brit. Orn.* pt. 2, p. 239 (1842).	
Gavia, *Boie, Isis*, 1844, p. 191 (partim).	
Gavia, *Kaup, Natürl. Syst.* p. 99 (1829)	L. ridibundus.
Leucus, *Kaup, Natürl. Syst.* p. 84 (1829)	L. marinus &c.
Leucus, *Bp. Consp. Av.* ii. p. 215 (1857)	L. argentatus &c.
Hydrocolœus, *Kaup, Natürl. Syst.* p. 113 (1829).	L. minutus &c.
Ichthyaëtus, *Kaup, Natürl. Syst.* p. 102 (1829) ..	L. ichthyaëtus.
Laroides, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 738 (1831); *Bp. Consp. Av.* ii. p. 217 (1857).	L. argentatus &c.
Chroicocephalus, *Eyton, Brit. B.* p. 53 (1837) ..	Lari cucullati.
Kroicocephalus, *Jameson, Journ. Asiat. Soc.* viii. p. 243 (1839)	
Chroicephalus, *Reichenb. Av. Syst. Nat., Longip.* p. v (1852)	
Chroocephalus, *Scl. & Salvin, P. Z. S.* 1871, p. 576 footnote	
Chroïcocephalus, *H. T. Wharton, Zool.* 1878, p. 105	
Chroeocephalus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890)	
Plautus, *Reichenb. Av. Syst. Nat., Longip.* p. v (1852)	L. glaucus.
Glaucus, *Bruch, J. f. O.* 1853, p. 101	L. glaucus.
Dominicanus, *Bruch, J. f. O.* 1853, p. 100; *id. op. cit.* 1855, p. 280	L. marinus &c.
Gavina, *Bp. Naumannia*, 1854, p. 212	L. canus &c.
Gavina, *Bp. Consp. Av.* ii. p. 222 (1857).....	L. audouini.
Blasipus, *Bruch, J. f. O.* 1853, p. 108	L. modestus.
Leucophæus, *Bp.* (*nec Bruch*, 1853) *Naum.* 1854, p. 211; *id. Consp. Av.* ii. p. 231 (1857)	L. heermanni &c.
Blasipus, *Bp. Naum.* 1854, p. 211; *id. Consp. Av.* ii. p. 211 (1857)	L. modestus &c.
Blacipus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 357 (1890)	L. crassirostris.
Adelarus, *Bruch, J. f. O.* 1853, p. 106, *ex Bp. MS.*	L. leucophthalmus &c.
Adelolarus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890)	
Gelastes, *Bp. Naum.* 1854, p. 212.....	L. gelastes.
Atricilla, *Bp. Naum.* 1854, p. 212	L. atricilla.
Melagavia, Gavia, Cirrhocephala, subg., *Bp. Naum.* 1854, pp. 212–213	Lari cucullati.

	Type.
Cirrocephalus, *Bruch, J. f. O.* 1855, p. 288.....	L. cirrhocephalus.
Bruchigavia, *Bp. Consp. Av.* ii. p. 228 (1857)....	L. novæ-hollandiæ.
Clupeilarus, *Bp. Consp. Av.* ii. p. 220 (1857)	L. fuscus &c.
Lambruschinia, *Salvad. Cat. Ucc. Sard.* p. 128 (1864)	L. gelastes.
Einalia, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890)	L. argentatus.
Melanolarus, *Heine & Reich. Nomencl. Mus. Hein.* p. 359 (1890)	L. franklini.
Epitelolarus, *Heine & Reich. Nomencl. Mus. Hein.* p. 359 (1890)	L. heermanni.

Range. Cosmopolitan, with the exception of Polynesia and the Central Pacific.

Key to the Species.

A. *Adult.* Head with a well-defined hood of a darker colour than the neck.
Young. Without a marked hood; tail white or grey, with a dark terminal or subterminal band; upper tail-coverts almost unspotted; abdomen white or grey.
a. Mantle clear grey.
a'. Hood black.
a''. Size very small, wing less than 9 inches.
a'''. Quills grey, broadly tipped with white; under-wing dark lead-grey ..... *minutus* ad., p. 173.
b'''. Quills black on both sides of shafts; under-wing white ..... *minutus* juv., p. 176.
b''. Size larger or much larger.
c'''. Wing more than 18 inches..... *ichthyaëtus*, p. 176.
d'''. Wing less than 15 inches.
*a*⁴. Mantle pearl-grey.
*a*⁵. Wing about 14 inches; bill deep lake-red ..... *serranus*, p. 188.
*b*⁵. Wing less than 12 inches.
*a*⁶. Bill coral-red, with a dark subterminal zone. [p. 180.
*a*⁷. Quills almost pure white. *melanocephalus* ad., [p. 182.
*b*⁷. Quills chequered with black ..... *melanocephalus* imm.,
*b*⁶. Bill black.
*c*⁷. First quill white; bill stout ..... *saundersi*, p. 183.
*d*⁷. First quill white, with black outer web and tip; bill rather slender; tarsus not longer than the middle toe and claw. *philadelphia*, p. 185.
*b*⁴. Mantle dark slate-grey.
*c*⁵. Outer quills grey above, broadly tipped with white and with wide subterminal black bars; underparts very rosy ..... *franklini*, p. 191.
*d*⁵. Outer quills black..... *atricilla*, p. 194.

b'. Hood grey like the mantle; underwing smoke-grey ..... *cirrhocephalus*, p. 198.
c'. Hood dark brown.
c''. First quill largely mixed with white.
e'''. First quill black on the basal half; chiefly or entirely white on the terminal half.
c[1]. Second and third quills white on both webs to the tip; first quill quite white terminally ..... *glaucodes*, p. 203.
d[1]. Second and third quills with subterminal black bars; a slight bar on the first quill .. *maculipennis*, p. 200.
f'''. First quill white, tipped and bordered on both webs with black ..... *ridibundus*, p. 207.
d''. First quill black, with a white subterminal mirror ..... *brunneicephalus*, p. 215.
b. Mantle dark brown to sooty; outer quills black.
d'. Nuchal collar white.
e''. Hood and fore-neck jet-black; bill slender ..... *leucophthalmus*, p. 219.
f''. Hood and fore-neck dark brown; bill stouter ..... *hemprichi*, p. 221.
e'. Nuchal region deep lead-colour, like the mantle; underparts smoke-grey .. *fuliginosus*, p. 222.
B. *Adult*. Head without a hood; tail with a subterminal black band.
Young. Head with an irregular striated hood; tail as above.
c. Tail mostly dark grey, band least defined; underparts smoke-grey; bill slender.... *modestus*, p. 223.
d. Tail mostly black or black and white.
f'. Tail black to the base; underparts vinaceous grey; mantle dark smoke-grey ..... *heermanni*, p. 225.
g'. Base of tail white; underparts white.
g''. Mantle brownish black ..... *belcheri*, p. 226.
h''. Mantle slate-grey..... *crassirostris*, p. 227.
C. *Adult*. Head without a hood, tail white.
Young. Head without any indication of a hood; tail with little or no subterminal dark band; upper tail-coverts unspotted. Wing less than 13 inches.
e. Bill black; quills white on both sides of shafts. Young without terminal band on rectrices ..... *bulleri*, p. 233.
f. Bill red.
h'. Inner web of first quill almost entirely white ..... *gelastes*, p. 230.
i'. Inner web of first quill mostly black.
i''. Larger, wing 12 inches; third quill with a white mirror in the fully adult. *novæ hollandiæ*, p. 235.
k''. Smaller, wing 11 inches.
g'''. The white on the basal half of 3rd quill extending far beyond the shaft on the inner web..... *scopulinus*, p. 238.

h'''. The white on the basal third of 3rd quill scarcely passing the shaft on the inner web ..... *hartlaubi*, p. 240.

D. *Adult.* Head without a hood; tail white.
Young. Head striated, and upper tail-coverts and tail mottled, with brownish; underparts brown. (Size larger: wing more than 14 inches.)
g. Quills mostly black.
k'. Mantle sooty black to dark slate-colour.
l''. Mantle deep sooty black.
i'''. Size very large, wing over 19 inches; terminal two-thirds of 1st quill white, and a large mirror on the 2nd quill; feet flesh-colour ..... *marinus*, p. 241.
k'''. Size smaller, wing under 17 inches; only a small white mirror on 2nd quill; feet olivaceous .. *dominicanus*, p. 245.
m''. Mantle dark slate-grey to blackish.
l'''. Tarsus longer than middle toe and claw.
*e*⁴. Smaller, but wing longer in proportion (16–16·5 inches); tarsus 2·4, middle toe 2·1; mantle darker ..... *fuscus*, p. 250.
*f*⁴. Larger, but wing shorter in proportion (17–18 inches); tarsus 2·75, middle toe 2·5 ..... *affinis*, p. 254.
m'''. Tarsus shorter than middle toe and claw.
*g*⁴. Smaller, wing 16·5 inches; no grey on inner webs of outer quills..... *occidentalis*, p. 257.
*h*⁴. Larger, wing 17–18 inches; inner webs of outer quills grey. *schistisagus*, p. 258.
l'. Mantle blue-grey to dark pearl-grey.
n''. Larger, wing 16·75–18 inches.
n'''. Mantle palest; feet flesh-colour; orbital ring pale yellow ..... *argentatus*, p. 260.
o'''. Mantle darker; feet bright yellow; orbital ring vermilion .... *cachinnans*, p. 266.
p'''. Mantle darkest; feet pale flesh-colour; orbital ring vermilion .. *vegæ*, p. 269.
o''. Smaller, wing not exceeding 16 inches, though long in proportion.
q'''. Second quill devoid of white mirror; bill crimson, with black subterminal zone; legs blackish .... *audouini*, p. 271.
r'''. Second quill with a white mirror.
*i*⁴. Bill coarser; depth of lower mandible at angle of genys 0·3 to 0·35 in.
*e*⁵. Mantle paler, pearl-grey; subterminal zone on bill complete, well-defined, and about 0·25 in. wide ..... *delawarensis*, p. 273.

f^5. Mantle darker, slate-grey; subterminal zone on bill ill-defined or absent ..... *californicus*, p. 276.

k^4. Bill more slender, depth of lower mandible at angle of genys less than 0·25 in.

g^5. Size larger, wing about 15 inches; basal part of 2nd and 3rd quills darker and with less grey ..... *canus*, p. 277.

h^5. Size smaller, wing not exceeding 14 inches; basal portions of 2nd and 3rd quills chiefly grey ..... *brachyrhynchus*, p. 283.

h. Quills devoid of black: mostly pale grey or white.

m'. Quills pale grey, tipped with white, and subterminally chequered with ash-grey ..... *glaucescens*, p. 284.

n'. Quills very pale grey, shading into white terminally, the three or four outer ones marked with ash towards their extremities.

p''. Larger, wing about 17 inches .... *nelsoni*, p. 287.

q''. Smaller, wing 15·5 inches; 4th quill more distinctly barred ..... *kumleini*, p. 288.

o'. Quills white, shading into palest grey at the base.

r''. Larger, wing 17–18 inches or more. *glaucus*, p. 289.

s''. Smaller, wing proportionately longer, 16 inches ..... *leucopterus*, p. 295.

1. Larus minutus.

? Larus albus, *Scop. Ann.* i. *Hist. Nat.* p. 80, no. 106 (1769).

Larus minutus, *Pallas, Reise Russ. Reichs*, iii. p. 702, App. no. 35 (1776); *Gm. S. N.* i. p. 595 (1788); *Retzius, Faun. Suec.* p. 278 (1790); *Lath. Ind. Orn.* ii. p. 813 (1790); *Meyer u. Wolf, Taschenb.* ii. p. 488 (1810); *Pallas, Zoogr. Rosso-Asiat.* ii. p. 331 (1811); *Temm. Man. d'Orn.* p. 508 (1815); *Meyer, Vög. Liv- u. Esthl.* p. 237 (1815); *Leach, Syst. Cat. Mamm. etc. Brit. Mus.* p. 41 (1816); *Meisner & Schinz, Vög. Schweiz*, p. 277 (1815); *Nilss. Orn. Suec.* ii. p. 179 (1817); *Temm. Man. d'Orn.* 2me éd. p. 787 (1820); *Meyer, Taschenb.* iii. p. 205 (1822); *Brehm, Lehrb.* p. 727 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 206 (1826); *Bp. Ann. Lyc. N. Y.* ii. p. 358 (1828); *Werner, Atlas, Palmipèdes*, pl. 31 (1828); *Savi, Orn. Tosc.* iii. p. 68 (1831); *Selby, Brit. B.* ii. p. 484, pl. xcii. (1833); *St.-Hilaire, Explor. Morée, Zool.* p. 55, *Atlas*, pl. v. (1833); *Jenyns, Man. Brit. Vertebr.* p. 271 (1835); *Temm. Man. d'Orn.* ed. 2, pt. 4, p. 490 (1840); *Crespon, Orn. Gard*, p. 492 (1840); *Naum. Vög. Deutschl.* x. p. 242, pl. 258 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcv & p. 241 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 281 (1840); *Selys-Longch. Faune Belge*, p. 151 (1842); *Crespon, Faune Mérid.* ii. p. 127 (1844); *Mühle, Orn. Griechenl.* p. 137 (1844); *Schl. Rev. Crit.* p. cxxvii (1844); *Yarrell, Brit. B.* 2nd ed. iii. p. 543 (1845); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 330 (1849); *Thomps.*

B. Irel. iii. p. 315 (1851); *Middend. Reis. Sibir., Zool.* p. 245 (1851: Yakutsk); *Kjærb. Danm. Fugle*, p. 334, taf. xli. (1852); *id. Suppl.* taf. xxii. figs. 1–2 (1854); *Hewits. Eggs Brit. B.* ii. p. 490, pl. 136. fig. 1 (1856); *Brandt, Lehmann's Reis. n. Buchara*, p. 330 (1852: Caspian); *Schl. Vog. Nederl.* p. 604, pls. 355, 356 (1854); *Heugl. Syst. Uebers*, p. 70 (1856: Egypt); *Meyer, Brit. B.* vii. p. 118, pl. 300 (1857); *Linderm. Vög. Griechenl.* p. 173 (1860); *Powys, Ibis*, 1860, p. 356 (Ionian Is., winter); *Naum. Vög. Deutschl., Anhang*, xiii. p. 275 (1860); *Irby, Ibis*, 1861, p. 246 (Jehangirabad, Jan. 1859); *Simpson, t. c.* p. 362 (Dobrudscha); *Schl. Dier. Nederl. Vogels*, p. 238 (1861); *id. Mus. P.-Bas*, Lari, p. 42 (1863); *Gray, Cat. Brit. B.* p. 235 (1863); *Wright, Ibis*, 1864, p. 152 (Malta); *Degl. & Gerbe, Orn. Eur.* ii. p. 441 (1867); *Borggr. Vogelf. Norddeutschl.* p. 141 (1869); *Doderl. Avif. Sicil.* p. 239 (1869); *Elwes & Buckley, Ibis*, 1870, p. 337 (Turkey); *R. Gray, B. W. Scotl.* p. 474 (1871); *G. R. Gray, Hand-l. B.* iii. p. 115, no. 11001 (1871); *Sharpe & Dresser, B. Eur.* viii. p. 373, pls. 599 & 599 A (1871); *Sundev. Sv. Fogl.* pl. 49. fig. 1 (1872); *Harting, Handb. Brit. B.* p. 76 (1872); *Shelley, B. Egypt*, p. 310 (1872: Alexandria); *Palmén, Finlands Foglar*, p. 612 (1873); *Heugl. Orn. Nordost-Afr.* Bd. ii. pt. 2, p. 1409 (1873: Lower Egypt); *Brooke, Ibis*, 1873, p. 346 (Sardinia); *Irby, Orn. Strs. Gibr.* p. 213 (1875); *Dresser, Ibis*, 1876, p. 415 (transl. Severtzoff: Turkestan up to 1000 ft. elevn.); *Saunders, P. Z. S.* 1878, p. 206 (revision); *id. Journ. Linn. Soc.* xiv. p. 399 (1878: distribution); *Marmottan & Vian, Bull. Soc. Zool. Fr.* 1879, p. 249 (Somme); *Finsch, Verh. z.-b. Ges. Wien*, xxix. p. 276 (1879: Ob); *Rodd, B. Cornwall*, p. 167 (1880); *Salvin, Cat. Strickl. Coll.* p. 621 (1882); *Seebohm, Ibis*, 1882, p. 385 (Archangel, breeds); *B. O. U. List Brit. B.* p. 191 (1883); *Rochebr. Faune Sénég., Ois.* p. 335 (1884: 11° N. lat.) [?]; *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 589 (1884); *id. Ibis*, 1884, p. 391 (S.W. France); *Reid, op. cit.* 1885, p. 254 (N.W. Marocco); *Buchner, Beitr. Russ. Reichs*, (2) ii. p. 129 (1885: St. Petersburg); *Seebohm, Hist. Brit. B.* iii. p. 301 (1885); *Mewes u. Homeyer, Ornis*, 1886, p. 272 (N.W. Russia, breeds); *Alléon, t. c.* p. 424 (Dobrudscha: females assume black heads earlier than males); *H-Brown & Buckl. Faun. Sutherl. etc.* p. 231 (1887); *Tait, Ibis*, 1887, p. 395 (Duro, Portugal); *Booth, Rough Notes*, iii. figs. (1887); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 57 (1888: Turkestan); *H-Brown & Buckley, Faun. Out. Hebr.* p. 145 (1888); *Dutcher, Auk*, 1888, pp. 170–172 (Long I., New York: first genuine American record); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 63 (1889); *Saunders, Man. Brit. B.* p. 647 (1889); *Tristr. Cat. Coll. B.* p. 8 (1889); *Lilford, Ibis*, 1889, p. 348 (Cyprus); *Gurney, Zool.* 1890, p. 19 (white var.); *Gätke, Vogelw. Helgol.* p. 578 (1891); *Saunders, Ibis*, 1891, p. 188 (L. Léman); *Taylor, t. c.* p. 473 (Alexandria); *Hartert, Katal. Vogelsamml. Senckenb.* p. 240 (1891); *Jäckel & Blas. Vög. Bayerns*, p. 356 (1891); *Hartert, Ibis*, 1892, p. 520 (E. Prussia); *A. C. Chapm. Ibis*, 1894, p. 350 (West Jutland); *Collett, Nyt Mag. f. Naturv.* Bd. xxxv. p. 306 (1894: Norway); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 297 (1895).

Little Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 391 (1785); *Yarr. Brit. B.* iii. p. 426 (1843).

Larus atricilloides, *Falck. Reise*, iii. p. 355, t. 24; *Gm. S. N.* i. p. 601 (1788: *ex Falck.*); *Lath. Ind. Orn.* ii. p. 813 (1790).

Xema minutus, *Boie, Isis*, 1822, p. 563; *Gould, B. Eur.* v. pl. 428

(1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *id. Cat. Ucc. Eur.* p. 78 (1842).

Xema minuta, *Brehm, Ornis*, Hft. 2, p. 137 (1826: Elbe, Nov. 1824); *Gray, List B. Brit. Mus.*, Anseres, p. 173 (1844).

Larus d'orbignyi, *Audouin, Hist. Nat. de l'Egypte*, pl. 9. fig. 3 (1825); *id. Expl. Planch. Ois. Egypte*, 2me éd. p. 341 (1828); *Lesson, Hist. Nat. Mamm. et Ois.* ix. p. 516 (1837); *Gray, Gen. B.* iii. p. 654 (1846).

Hydrocolœus minutus, *Kaup, Natürl. Syst.* p. 113 & p. 196 (1829: type of genus); *Bp. C. R.* xlii. p. 771 (1856); *Loche, Expl. Sci. Algér., Ois.* ii. p. 194 (1867); *Gould, B. Gt. Brit.* v. pl. 66 (1873); *Olphe-Gall. Orn. de l'Eur. Occid.* fasc. x. p. 104 (1886); *Salvad. Ucc. Ital.* p. 284 (1887); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890).

Larus nigrotis, *Lesson, Traité*, p. 618 (1831); cf. *Pucheran, Rev. Zool.* 1850, p. 15; *Gray, Gen. B.* iii. p. 654 (1846).

Xema minutum, *Brehm, Vög. Deutschl.* p. 763 (1831); *Bp. Icon. Faun. Ital., Ucc.* i. tav. 46. f. 2 (1840); *Jaub. et B.-Lapomm. Rich. Orn. France*, p. 397 (1859); *Fritsch, Vög. Eur.* p. 466, tab. 54. figs. 2–3 (1870); *Homeyer, Ornis*, 1885, p. 81; *Torre & Tsch. t. c.* p. 561 (Dalmatia); *Hartert, MT. orn. Ver. Wien*, 1887, p. 80 (E. Russia, has bred near Danzig); *Riesenth. Wasservög. Mitteleurop.* p. 138 (1889); *Keller, Orn. Carinthiæ*, p. 303 (1890); *Brusina, Orn. Croatica*, p. 92 (1889); *Fatio & Studer, Cat. Ois. Suisse*, pp. 62–63 (1892).

Chroicocephalus minutus, *Eyton, Cat. Brit. B.* p. 54 (1836); *Reichenb. Av. Syst. Nat., Longip.* p. v (1852); *Bruch, J. f. O.* 1853, p. 105; *Licht. Nomencl. Av.* p. 98 (1854); *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 343 (1855); *Salvad. Ucc. Sard.* p. 124 (1864); *Saunders, Ibis*, 1871, p. 399 (S. Spain); *Tacz. Bull. Soc. Zool. France*, 1876, p. 264 (E. Siberia); *Giglioli, Ibis*, 1881, p. 218 (Italy); *Radde, Orn. Cauc.* p. 483 (1884); *Tacz. Ornis*, 1888, p. 508 (Poland); *id. Mém. Ac. St. Pétersb.* xxxix. p. 1043 (1893: E. Siberia).

Gavia minuta, *Macgill. Man. Br. Orn.* pt. ii. p. 242 (1842); *id. Br. B.* v. p. 613 (1852); *Blasius, J. f. O.* 1865, p. 371 (critical); *Severtz. Turkest. Jevotn.* p. 70 (1873: up to 1000 ft.).

Larus pygmæus, *Gray, Gen. B.* iii. p. 654 (1846).

Chroocephalus minutus, *Salvad. Faun. Ital., Ucc.* p. 289 (1872); *Giglioli, Avif. Ital.* p. 422 (1886); *id.* i. *Resoc. Av. Ital.* p. 638 (1889); *id.* ii. *Resoc.* p. 648 (1890); *id.* iii. *Resoc.* p. 509 (1891).

Adult in breeding-plumage. Head and upper neck deep black; lower neck, tail, and under surface white, with a pink tinge on the breast and abdomen; mantle pale grey; quills grey, very broadly edged with white and darkening to smoke-colour towards the margins of their inner webs; undersides of quills nearly black, except at the tips; under wing-coverts dark smoke-grey; bill deep lake-red (reddish brown in preserved skins); tarsi and toes vermilion (drying orange-red). Total length 11 inches, culmen 1·2, wing 8·75, tail 3·75, tarsus 1·1, middle toe with claw 1·2. The sexes are alike externally.

Adult in winter. Similar; but forehead white; crown, nape, and orbital region merely greyish: the grey soon approaching black in vigorous birds.

Immature. The grey of the crown and nape tinged with brownish; wing-coverts and long inner secondaries dark brown, tipped with white; primaries sooty on both webs adjoining the shafts, and white on the remainder of the inner webs; the extreme tips white, increasingly so on the inner primaries, until at the 7th the whole terminal portion is white; tail-feathers with a broad subterminal blackish band, which diminishes from the outer rectrices till lost with the increasing age of the bird. Practically the duration of the immature stage is very short, the primaries with dark undersides being assumed in the second autumn.

Young. Feathers of the crown, nape, and upper surface generally dark umber-brown, with white or buffish-grey tips; the grey feathers gradually appearing in the middle of the back; otherwise like the immature stage: bill brownish; tarsi and toes dull flesh-colour in the living bird.

Hab. Lacustrine and marshy districts of subarctic and temperate Europe in summer, and southward to the Mediterranean Basin in winter; temperate Asia as far as the mouth of the Amoor and the sea of Okhotsk, but not in Mongolia or China. Fortuitously in Northern India (once); Færoe Is. (once); New York State (once).

a. Ad. st.	Great Britain (*Whiteley*).	Purchased.
b. Juv. sk.	Devonshire.	Col. Montagu [P.].
c. Ad. sk.	Torquay, winter (*E. Saunders*).	H. Saunders Coll.
d. Juv. sk.	Freshwater, I. of Wight, Dec. 20th (*Rogers*).	H. Saunders Coll.
e. Juv. st.	Brighton, winter.	F. Bond, Esq. [P.].
f. Ad. st.	Essex coast, winter.	F. Bond, Esq. [P.].
g. Ad. sk.	Leadenhall Market, Oct.	H. Saunders Coll.
h. Ad. sk.	Whitburn, co. Durham, Dec. 26th.	Hume Coll.
i. Juv. sk.	Near Aberdeen, Aug. (*Small*).	H. Saunders Coll.
k. Juv. sk.	Nalsoë, Færoes, Feb. 11th (*H. L. Müller*).	Col. H. W. Feilden [P.].
l. ♂ ad. sk.	Havre, Feb. 28th (*V. Pluche*).	H. Saunders Coll.
m, n. Juv. sk.	Trieste, Jan. 28th, 1868 (*H.R.H. the Prince of Wales*).	H. Saunders Coll.
o. Ad. sk.	Corfu, winter.	Col. Portlock [P.].
p. ♀ ad. sk.	Alexandria, Feb. 28th (*G. E. S.*).	Shelley Coll.
q, r. ♂ ♀ ad. sk.	Sarepta, Volga, April–May (*Moeschler*).	Hume Coll.
s, t. ♂ ♀ ad. sk.	Lake Ladoga, North Russia, May & June (*W. Meves*).	Salvin-Godman Coll.
u. ♂ ad. sk.	Lake Ladoga, June (*W. M.*).	H. Saunders Coll.
v. ♂ ad. sk.	Lake Onega, June (*Schlüter*).	Hume Coll.
w. ♂ juv. sk.	Totloh, river Ob, Aug. 18th.	Dr. O. Finsch [C.].
x. Sternum.		M. Lefebvre [C.].

2. Larus ichthyaëtus.

Gavia ridibunda phœnicopos, *S. G. Gm. Reise Russl.* i. p. 152, pls. xxx. & xxxi. (1770).

Larus ichthyaëtus, *Pall. Reis. Russ. Reichs*, ii. p. 713 (1773: Caspian); *P. L. S. Müller, Syst. Nat., Anhang*, p. 108 (1776); *Gm. S. N.* i. p. 599 (1788); *Lath. Ind. Orn.* ii. p. 811 (1790); *Bonn. Enc. Méth.* i. p. 85 (1790); *Pall. Zoogr. Rosso-Asiat.* ii. p. 322, tab. lxxvii.

(1811); *Meyer, Zusätze Taschenb.* iii. p. 194 (1822); *Cretzschm. in Rüpp. Reise N. Afr., Atlas*, p. 27, pl. 17 (1826; Red Sea); *Werner, Atlas, Palmipèdes*, pl. 20 (1828); *Ménétr. Cat. Rais. Cauc.* p. 56 (1832); *Keys. u. Blas. Wirb. Eur.* p. xcv & p. 241 (1840); *Schinz, Europ. Faun.* p. 378 (1840); *Nordm. in Demid. Voy. Russ. Mérid.* iii. p. 280 (1840); **Temm. Man. d'Orn.* 2e éd. 4e pte. p. 472 (1840); **Mühle, Orn. Griechenl.* p. 139 (1844); **Schl. Rev. Crit.* p. cxxviii (1844); *Gray, Gen. B.* iii. p. 654 (1846); *Blyth, Cat. B. Mus. As. Soc.* 1849, p. 288; *Degl. Orn. Eur.* ii. p. 320 (1849); *Brandt, Lehmann's Reis. n. Buchara*, p. 331 (1852: Caspian, breeding on Kamenoi Is.); *Licht. Nomencl. Av.* p. 99 (1854); *Heugl. Syst. Uebers.* p. 69 (1856: Red Sea and White Nile); *Ross, Ann. & Mag. N. H.* (3) iv. p. 467 (1859: Exmouth); **Linderm. Vög. Griechenl.* p. 173 (1860); *Heugl. in Peterm. Mitth.* 1861, p. 29 (Red Sea); *Gray, Cat. Brit. B.* p. 233 (1863); *Schl. Mus. P.-Bas*, Lari, p. 34 (1863); *Bree, B. Eur.* iv. p. 106 (1866); *Degl. & Gerbe, Orn. Eur.* ii. p. 433 (1866); *Tristr. Ibis*, 1868, p. 330 (Palestine); *Gray, Hand-l. B.* iii. p. 114, no. 10980 (1871); *Shelley, B. Egypt*, p. 307, pl. xiii. (1872); *Harting, Handb. Brit. B.* p. 175 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. ii. p. 1401 (1873); *Dresser, B. Eur.* viii. p. 369, pl. 598 (1873); *Hume, Str. F.* i. p. 276 (1873: Sind, Oman &c.); *Marchand, Rev. Zool.* (3) ii. pl. xiii. pull. (1874); *Oates, Str. F.* iii. p. 375 (1875: Ceylon); *Blyth & Wald. B. Burm.* p. 162 (1875); *Bree, B. Eur.* 2nd ed. v. p. 83 (1876); *Dresser, Ibis*, 1876, p. 415 (Caspian to Tian-Shan up to 1000 ft.); *Blanf. East Pers.* ii. p. 292 (1876); *Prjev. in Rowley's Orn. Misc.* iii. p. 109 (1878: only as far as E. Kokonor, not in China proper nor in Amurland or E. Siberia); *Taylor, Ibis*, 1878, p. 373 (Port Said and Damietta); *Finsch, Verh. z.-b. Ges. Wien*, 1879, p. 274 (West Siberia); *V. Ball, Str. F.* vii. p. 233 (1879: Singhbhum); *Hume, op. cit.* viii. p. 115 (1879: List); *Legge, B. Ceylon*, p. 1046 (1880); *Vidal, op. cit.* ix. p. 94 (1880: Malabar); *Butler, t. c.* p. 439 (Deccan); *Seebohm (ex Henke), Ibis*, 1882, p. 230 (Caspian, breeding); *Biddulph, Ibis*, 1882, p. 289 (Gilgit); *Oates, B. Brit. Burm.* ii. p. 414 (1883); *Tristr. Faun. & Flor. Palest.* p. 137 (1884); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 609 (1884); *Yerbury, Ibis*, 1886, p. 23 (1886: Aden); *Bianchi, Mél. Biol. Acad. St. Pétersb.* xii. livr. 5, p. 682 (1886: Samarcand); *Vian, Bull. Soc. Zool. France*, 1887, p. 389 (nestling); *Pieske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 57 (1888: Turkestan); *Hume, Str. F.* xi. p. 348 (1888: Manipur); *Saunders, Man. Brit. B.* p. 653 (1889); *Tristram, Cat. Coll. B.* p. 7 (1889: Sea of Galilee); *Sclater, P. Z. S.* 1891, p. 464 (alive, from Persian Gulf); *Sharpe, 2nd Yark. Miss.* p. 134 (1891); *Barnes, Ibis*, 1893, p. 175 (Aden); *Lilford, Col. Fig. Brit. B.* pt. xxiv. (1893).

Great Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 370 (1785).

Larus ichtyceus [sic], *Brehm, Lehrb.* p. 720 (1824).

Ichthyaëtus, *Kaup, Natürl. Syst.* p. 102 & p. 196 (1829: type of genus *Ichthyaëtus*).

Larus leucomelas, *Lesson (nec Vieill.), Traité*, p. 617 (1831: Bengal); cf. *Pucheran, Rev. Zool.* ii. 1850, p. 634.

Xema ichthyaëtum, *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *id. Cat. Ucc. Eur.* p. 78 (1842); *Fritsch, Vög. Eur.* p. 470, tab. 54. fig. 9 (1870).

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* It has not been considered advisable to place *L. ichtyaëtus*, *L. ichtyaëtos*, and *L. ichthyaëtos* under separate heads.

Larus kroicocephalus, *Jameson, J. A. S. B.* viii. p. 242 (1839).
Xema ichthyætus, *Gray, List B. Brit. Mus.*, Anseres, p. 171 (1844: Caspian); *Rüpp. Syst. Uebers.* p. 139 (1845: Lower Egypt).
Chroicocephalus ichthyaëtus, *Bruch, J. f. O.* 1853, p. 104; *id. op. cit.* 1855, p. 288; *Swinhoe, P. Z. S.* 1863, p. 327; *Holdsw. P. Z. S.* 1872, p. 480 (Ceylon); *Radde, Orn. Cauc.* p. 479 (1884); *Nikolsky, Trudui St. Petersb.* xvii. p. 402 (1886); *Zaroudnoi, Bull. Soc. Mosc.* 1889, p. 841 (Transcaspia); *Radde & Walter, Ornis*, 1889, p. 125 (Transcaspia).
Ichthyaëtus pallasi, *Bp. C. R.* xlii. p. 771 (1856); *Antin. Cat. deser. Ucc.* p. 115 (1864: Cairo); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890).
Larus ichthyaëtus minor, *Schleg. Mus. P.-Bas*, Lari, p. 34 (1863).
Kroikocephalus ichthyætus, *Jerd. B. Ind.* iii. p. 831 (1864).
Gavia ichthyaëtus, *Blasius, J. f. O.* 1865, p. 370 (revision); *Severtz. Turkest. Jevotn.* p. 70 (1873: Tian-Shan up to 1000 ft.).
Larus innominatus, *Hume, Str. F.* viii. p. 394 (1879); *Oates, B. Brit. Burm.* ii. p. 416 (1883).
Larus affinis, *Biddulph, Ibis*, 1881, p. 101 (Gilgit: *cf. id. op. cit.* 1882, p. 289).

Adult male in breeding-plumage. Entire head and nape jet-black, sharply contrasted against the white of the neck and of the whole of the underparts; above and below the eye two small crescentic white patches; mantle pale slate or blue-grey; secondaries broadly edged with white; the first primary chiefly white, though black along most of the narrow outer web and also next the shaft on the inner web about 2 inches above the tip; second quill with more black transversely on both sides of the shaft, and an ill-defined sub-apical bar; the third, fourth, and fifth quills sub-apically barred with black and broadly tipped with white; the sixth quill imperfectly barred; the remaining upper quills white at the tips and on the outer webs, and grey on the inner webs; rump, tail, and under surface white to the throat: bill orange, with a black band at the angle; tarsi and toes greenish yellow, the webs orange. Total length about 26 inches, culmen 3·25, wing 19, tail 7·5, tarsus 3·3, middle toe with claw 2·6.

Less mature birds have more black on the primaries, the first quill being imperfectly barred sub-apically; the second black on the lower part, with a white mirror, and so on.

Adult female. Similar, but smaller; average wing measurement 18 inches.

Adult in autumn and early winter. Similar, except as regards the head which is white, more or less streaked with brownish black. The black hood is often assumed by the middle of February, and the moult of the primaries is then completed.

Immature. Similar, but the five outer primaries are brownish black on their lower portions, with white patches on either side of the shaft in the outermost quill only; wing-coverts and inner secondaries mottled with brown; tail-feathers white, broadly barred subterminally with brownish black, and edged with white. In an earlier stage there is no white at all on the outer primary, and the grey of the mantle is much mottled with brown.

Young. Chiefly mottled brown on the head, sides of the neck, and mantle; primaries umber-brown; the secondaries brown, broadly tipped with white and *conspicuously bordered with white along their outer webs*; tail-feathers white on the upper half, and well-defined, unmottled, blackish brown on the terminal portion, with a faint whitish edge; underparts white: bill horn-colour, blackish at the angle.

Nestling. Uniform greyish white above, and white below, with a slightly buff tint on the throat: bill black to the angle, the terminal portion yellow; tarsi and toes brown.

Obs. This is the only species of Hooded Gull which has unspotted young.

Hab. Black Sea (rare), the Levant, Palestine, Egypt to Nubia, the Red Sea; from the Caspian Sea, across Turkestan and Tibet to the Koko-nor, in 100° E. long.; in winter, the Persian Gulf, the coast of Baluchistan, and India generally as far as Ceylon and Burma. Not in China proper nor in Japan. Fortuitously in England (once). Eggs laid on sandy coasts: clay-white in colour, with bold dark blotches in strong contrast.

a. Ad. st.	Caspian Sea.	Purchased.
b. ♂ ad. sk.	Caspian Sea, summer (*Möschler*).	H. Saunders Coll.
c. Pull. sk.	Lower Volga, June (*Möschler*).	H. Saunders Coll.
d. ♀ imm. sk.	Lower Volga (*W. Schlüter*).	H. Saunders Coll.
e, f. ♂ ad. et pull. sk.	Lower Volga, May–June (*Möschler*).	E. Hargitt Coll.
g. ♀ juv. sk.	River Kishon, Palestine, winter.	Canon Tristram [C.].
h–k. ♂ ♀ ad. et imm. sk.	Fayoom, Egypt, Feb.–March (*G. E. S.*).	Shelley Coll.
l. Imm. sk.	El Kab, Egypt (*G. E. S.*).	Shelley Coll.
m. Imm. sk.	Zoulla, Red Sea, June 1868 (*W. Jesse*).	Tweeddale Coll.
n. ♀ ad. sk.	Muscat, Feb.	Hume Coll.
o–q. ♂ ♀ ad. sk.	Mekran Coast (*Capt. Bishop*).	Hume Coll.
r–w. ♂ ♀ ad.; *x–z*. Juv. sk.	Gwader, Mekran Coast, Feb. (*A. O. H.*).	Hume Coll.
a'–g'. ♂ ♀ ad. et imm. sk.	Munchar Lake, Sind, Jan. 29–30.	Hume Coll.
h', i'. ♀ ad. et juv. sk.	Punjab, Jan. 31 (*A. O. H.*).	Hume Coll.
k'. Juv. sk.	Kashmir.	Hume Coll.
l'. Juv. sk.	Panja, April 1872.	F. Stoliczka [C.].
m', n'. Ad. et juv. sk.	Kashgar (*Dr. Bellew*).	India Museum [P.].
o'. ♀ ad.; *p'*. ♂ imm. sk.	Mehnede ghat, March (*A. Anderson*).	Seebohm Coll.
q'. ♀ vix ad. sk.	Futtehgurh, Nov. (*A. A.*).	Seebohm Coll.
r', s'. ♀ juv. sk.	Futtehgurh, Apr. & Oct. (*A. A.*).	H. Saunders Coll.
t'. ♀ juv. sk.	Kheree district, Feb.	Hume Coll.
u'. Ad. sk.	Nujjufghur Jheel, Dec. 31.	Hume Coll.
v', w'. ♂ ♀ ad. sk.	Allahabad, Feb. & March (*A. O. H.*).	Hume Coll.

x'. ♂ ad. sk.	Magna River, Cachar, March (*J. Inglis*).	Hume Coll.
y'. ♀ juv. sk.	Saugor Island, Bengal, March.	Hume Coll.
z'. ♂ juv. sk.	Dacca.	Hume Coll.
a''. Ad. sk.	Comillah, Tipperah, March.	Hume Coll.
b''–d''. ♂ ♀ ad. et juv. sk.	Manipur, Feb., Mar., Dec.	Hume Coll.
e''. ♀ vix ad. sk.	Gopalpore, Ganjam Coast, March (*W. Davison*).	Hume Coll. (Type of *L. innominatus*, Hume.)
f''. Juv. sk.	Madras.	T. C. Jerdon, Esq. [P.].
g'', *h''*. ♀ juv. sk.	Madras Roads, March.	Hume Coll.
i''. Juv. sk.	Pegu, Burma (*E. W. Oates*).	Oates Coll.
k''. Imm. sk.	Wippitan, Burma, Dec. (*J. Darling*).	Hume Coll.

3. Larus melanocephalus.

Larus melanocephalus, *Natterer, Isis*, 1818, p. 816; *id. in Temm. Man. d'Orn.* 2me éd. ii. p. 777 (1820); *Meyer, Taschenb.* iii. p. 201 (1822); *Steph. in Shaw's Gen. Zool.* xiii. pt. i. p. 197 (1826); *Werner, Atlas, Palmipèdes*, pl. 27 (1828); *Savi, Orn. Tosc.* iii. p. 65 (1831); *Michahelles, Isis*, 1835, p. 868; *Temm. Man. d'Orn.* 2me éd. 4me pte. p. 480 (1840); *Naum. Vög. Deutschl.* x. p. 254, pl. 259 (1840); *Schinz, Eur. Faun.* p. 382 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcv & p. 241 (1840); *Nordm. in Demid. Voy. Russ. Mérid.* iii. p. 281 (1840); *Schl. Rev. Crit.* p. cxxvii. & p. 115 (1844); *Mühle, Orn. Griechenl.* p. 138 (1844); *Gray, Gen. B.* iii. p. 654 (1846); *Reichenb. Natat.* tab. xxv. figs. 840-842 (1848); *Degl. Orn. Eur.* ii. p. 324 (1849); *Baldamus, Naum.* 1851, Heft iv. p. 45 (Hungary, one pair, nesting); *id. op. cit.* 1852, Bd. ii. Hft. 2, p. 81; *id. op. cit.* 1853, p. 443; *Heugl. Syst. Uebers.* p. 69 (1856: Alexandria); *Powys, Ibis*, 1860, p. 356 (Corfu); *Linderm. Vög. Griechenl.* p. 173 (1860); *Naum. Vög. Deutschl., Anhang*, p. 277 (1860); *Schl. Mus. P.-Bas*, Lari, p. 43 (1863); *Wright, Ibis*, 1864, p. 151 (Malta); *Bree, B. Eur.* iv. p. 102, cum fig. (1866); *Degl. & Gerbe, Orn. Eur.* ii. p. 437 (1867); *Saunders, Ibis*, 1869, pp. 396-397 (Sicily, ad.); *Doderl. Avif. Sicil.* p. 237 (1869); *Elwes & Buckley, Ibis*, 1870, p. 337 (Black Sea and Levant); *Gray, Hand-l. B.* iii. p. 115, no. 10993 (1871); *Shelley, B. Egypt*, p. 308 (1872); *Saunders, Ibis*, 1872, p. 79 (Barking Creek, Essex); *Harting, Handb. Brit. B.* p. 175 (1872); *A. B. Brooke, Ibis*, 1873, p. 346 (Sardinia, &c.); *Heugl. Orn. Nord-O. Afr.* Bd. ii. pt. 2, p. 1407 (1874: coast of Egypt); *Lilford, Ibis*, 1875, p. 3 (Toulon); *Irby, Orn. Strs. Gibr.* p. 213 (1875); *Bree, B. Eur.* 2nd ed. v. p. 78 (1876); *Saunders, Bull. Soc. Zool. Fr.* 1877, p. 204 (S. Spain); *Taylor, Ibis*, 1878, p. 374 (Alexandria); *Saunders, P. Z. S.* 1878, p. 199 (revision); *Dresser, B. Eur.* viii. p. 365, pl. 597. fig. 2 (1878); *Marmott. & Vian, Bull. Soc. Zool. Fr.* 1879, p. 249 (Crotoy, Somme); *Nimi, Atti Soc. Ital.* xxvi. p. 107 (1883); *Tristr. Faun. & Flor. Palest.* p. 136 (1884); *Saunders, Ibis*, 1884, p. 390 (S.W. France); *id. 4th ed. Yarr. Brit. B.* iii. p. 604, footnote (1884); *Alléon, Ornis*, 1886, p. 423 (Dobrudscha, breeding); *Saunders, P. Z. S.* 1877, p. 2 (Yarmouth, ad., winter); *Tait, Ibis*, 1887, p. 395 (Portugal); *Guillemard, op. cit.* 1888, p. 111; *Lilford, op. cit.* 1889, p. 348 (Cyprus); *Tristram, Cat. Coll. B.* p. 8 (1889); *Saunders, Man. Brit. B.* p. 651, cum fig.

(1889); *Reichen. Syst. Verz. Vög. Deutschl.* p. 63 (1889); *Jäckel & Blasius, Vög. Bayerns*, p. 356 (1891: Bodensee); *Hartert, Kat. Vogelsamml. Senckenb.* p. 241 (1891); *Saunders, Bull. Brit. Orn. Club*, no. xix. p. xlvii (1894: juv.; Hungary); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 297 (1895).

Larus atricilla, *Natt. Isis*, 1818, p. 817; *Temm. Man. d'Orn.* ed. 2, p. 779 (1820: young); *Jenyns, Man. Brit. Vertebr.* p. 274 (1835: young; *ex Temm.*); *Mühle, Orn. Griechenl.* p. 141 (1844: young); *Linderm. Vög. Griechenl.* p. 175 (1860: young); *Saunders, Ibis*, 1869, p. 396 (Sicily: young).

Xema melanocephalus, *Boie, Isis*, 1822, p. 563.

Larus plumbiceps (partim), *Meyer, Taschenb.* iii. p. 202 (1822).

Adriatic Gull and Italian Gull, *Latham, Gen. Hist.* x. p. 144 (1824).

Hydrocolæus plumbiceps, *Kaup, Natürl. Syst.* p. 113 and p. 196 (1829).

Xema melanocephalon, *Brehm, Vög. Deutschl.* p. 757 (1831).

Xema caniceps, *Brehm, Vög. Deutschl.* p. 758 (1831: Adriatic, imm.).

Xema melanocephala, *Gould, B. Eur.* v. pl. 427 (1837); *Gray, List B. Brit. Mus.*, Anseres, p. 172 (1844: Athens).

Xema melanocephalum, *Bp. Comp. List*, p. 62 (1838); *id. Icon. Faun. Ital., Uce.* i. tav. 45. fig. *b* (1840); *id. Cat. Uce. Eur.* p. 78 (1842); *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 395 (1859); *Fritsch, Vög. Eur.* p. 469, pl. 57. figs. 2, 3 (1870); *Torre & Tschusi, Ornis*, 1885, p. 561 (Adriatic); *Riesenthal, Wasservög. Mitteleurop.* p. 138 (1889); *Keller, Orn. Carinthiæ*, p. 303 (1890).

Xema plumiceps [sic], *Bp. Comp. List*, p. 62 (1838).

Larus michahellii, *Mühle, Orn. Griechenl.* pp. 138–9 (1844).

Larus leucophthalmus, *Mühle, Orn. Griechenl.* p. 145 (1844).

Chroicocephalus melanocephalus, *Bruch, J. f. O.* 1853, p. 104; *id. op. cit.* 1855, p. 289; *Licht. Nomencl. Av.* p. 98 (1854); *Salvad. Uce. Surd.* p. 124 (1864); *Taylor, Ibis*, 1867, p. 72 (Alexandria); *Wyatt, Ibis*, 1870, p. 18 (Tor, Red Sea, identified with a binocular); *Saunders, Ibis*, 1871, p. 399 (S. Spain); *Giglioli, op. cit.* 1881, p. 218 (Italy); *id. Avif. Ital.* p. 423 (1886); *id. op. cit.* i. *Resoc.* p. 639 (1889); *id. op. cit.* ii. *Resoc.* p. 647 (1890); *id. op. cit.* iii. *Resoc.* p. 509 (1891).

Melagavia melanocephalus, *Bp. Naum.* 1854, p. 213.

Chroicocephalus caniceps, *Brehm, Naum.* 1855, p. 294 (Adriatic).

Gavia melanocephala, *Bp. C. R.* xlii. p. 771 (1856); *Blasius, J. f. O.* 1865, p. 371 (revision); *Loche, Expl. Sci. Algér., Ois.* ii. p. 191 (1867).

Gavia affinis, *Nardo, Atti Ist. Ven.* (ser. 3) iv. p. 1056 (1859).

Chroocephalus melanocephalus, *Salvad. Faun. Ital., Uce.* p. 288 (1872); *Martorelli, Uce. Sardegna*, p. 52 (1884).

Hydrocolæus melanocephalus, *Salvad. Uce. Ital.* p. 283 (1887); *Brusina, Orn. Croatica*, p. 92 (1889).

Melagavia melanocephala, *Olphe-Gall. Contr. Orn. Eur. occid.* fasc. x. p. 94 (1886).

Melanolarus melanocephalus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890).

Adult in breeding-plumage. Head jet-black, with a small white crescentic patch above the eye and another below; neck, tail, and under surface white; mantle pearl-grey; primaries pure white on their terminal portions and tinged with delicate pearl-grey above, chiefly along the outer webs; the narrow outer web of the first

quill black on the upper two-thirds; shafts pure white: bill rich coral-red, with more or less of a blackish band in front of the angle; tarsi and toes red. Total length 15·5 inches, culmen 1·8, wing 11·6 to 12, tail 5, tarsus 1·9, middle toe with claw 1·65.

The sexes are alike in plumage; the males may be a trifle larger than the females, and have more robust bills.

Adult in winter. Like the above, except that the head is white, streaked with ash and dull black, especially about the eye and the ear-coverts; the colours of the bill, &c. duller.

Larus melanocephalus, juv.

Immature. Similar, the hood being perfectly black in the spring and summer preceding the mature plumage above described, and the only difference being in the pattern of the quills. All of these are white to palest grey on the greater part of their inner webs, and entirely so in the two outer pairs, but both of the latter quills have some black on the outer webs, while on the 3rd and 4th the black crosses both webs subterminally.

In the previous year (as I believe) the head is also black; the portion of the *inner* webs next the shafts is also black in the three outer quills, the black spreading out into a transverse bar, except on the 1st, where the white breaks through; the 4th and 5th are also barred, and all have broad white tips. This dark colour appears to fade gradually out of the feather—earliest on the inner webs—(as it does in other species), to judge from a specimen obtained at

Algiers, Feb. 21 (*Shelley Coll.*). Bill duller in colour, with more black at the angle; tarsi and toes reddish brown.

Young (February). Head streaked with greyish brown; wing-coverts mottled with brown, mantle chiefly grey; secondaries with dark brown centres, broadly tipped and bordered with white (as in *L. ichthyaëtus*); primaries dark brown on both webs next the shafts down to the tips and up the edges of the inner webs, the rest of the inner webs white, except the outermost quill, in which the white is isolated (*as shown in the cut*, p. 182); tail white, with a subterminal brown band: bill yellow at the base, the rest brownish black. In the previous autumn the upper plumage is very dark and the primaries are chiefly sooty brown, so that the bird might excusably be mistaken for the young of *L. atricilla*.

Nestling. Dull grey, tinged with buff, mottled and streaked with dark brown on the upper surface; grey below: bill comparatively short and stout.

Hab. Black Sea, the entire Mediterranean, the coasts of Spain, Portugal, and South-western France; at times at the mouth of the Somme, and in England. Occasionally inland, and said to have bred in Hungary. Nests in marshes or among sand-banks.

a. Juv. st.	Barking Creek, Thames, Jan. (*Whiteley*).	Purchased.
b. Imm. sk.	Trocadero, Cadiz Bay (*F. Forrester*).	H. Saunders Coll.
c. ♂ ad. sk.	Malaga, Jan. 30 (*F. de los Rios*).	H. Saunders Coll.
d. Ad. sk.	Gulf of Genoa (*G. Doria*).	H. Seebohm Coll.
e. Juv. sk.	Palermo, Sicily, Mar. (*Doderlein*).	H. Seebohm Coll.
f. ♀ ad.; *g*. Juv. sk.	Malta, Feb. (*C. A. Wright*).	H. Saunders Coll.
h, *i*. Ad. et vix ad. st.	Corfu.	Col. Portlock [P.].
k. Ad. st.	Athens.	C. L. W. Merlin, Esq. [P.].
l. Vix ad. sk.	Bosphorus, April (*Robson*).	Salvin-Godman Coll.
m. Vix ad. sk.	Bosphorus, April (*Robson*).	H. Saunders Coll.
n. ♂ vix ad. sk.	Tamak, Crimea, June (*Th. Schmidt*).	Seebohm Coll.
o. Pull. sk.	Knasib, Black Sea, June (*Cullen*).	H. Saunders Coll.
p–*t*. ♂ ♀ ad. sk.	Larnaka, Cyprus, April (*H. Guillemard*).	Lord Lilford [P.].
u, *v*. ♀ ad. sk.	Tunis (*L. Fraser*).	Purchased.
w, *x*. Juv. et vix ad. sk.	Algiers, February (*G. E. S.*).	Shelley Coll.

4. Larus saundersi.

Gavia kittlitzii, *Swinhoe* (*nec Bruch*), *Ibis*, 1860, p. 68 (Amoy); *id. op. cit.* 1861, p. 345.

Larus schimperi, *Schlegel*, *Mus. P.-Bas*, Lari, p. 40 (1863: *not of Bruch*, 1853, *nor of Bp.*, *which* = L. franklini).

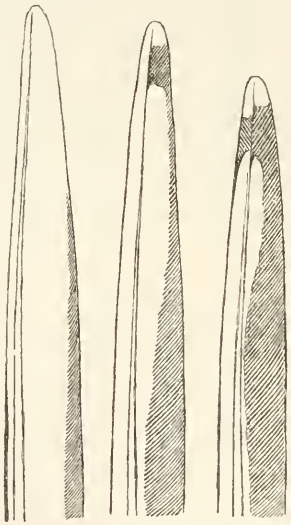
Chroicocephalus kittlitzii, *Swinh. Ibis*, 1863, p. 428 (Formosa); *id. P. Z. S.* 1863, p. 328.

Xema kittlitzii, *David, N. Arch. du Mus., Bull.* vii. p. 13, no. 461 (1871).

Chroicocephalus saundersi, *Swinhoe, P. Z. S.* 1871, pp. 273, 421, pl. xxii. (O-seu-keo, Amoy); *David & Oustalet, Ois. Chine*, p. 522 (1877); *Taczan. P. Z. S.* 1888, p. 453 (Corea); *id. Mém. Ac. St. Pétersb.* xxxix. p. 1045 (1893: Sidemi, mouth of the Amoor).

Larus saundersi, *Saunders, P. Z. S.* 1878, p. 205 (revision); *id. Journ. Linn. Soc., Zool.* xiv. p. 399 (1878: distribution); *Tristr. Cat. Coll. B.* p. 8 (1882: O-su-keo [Amoy, not "Japan"]); *Styan, Ibis*, 1891, p. 508 (not on Lower Yangtse); *Hartl. Abh. Ver. Brem.* xii. Hft. 2, p. 334 (1892: Hainan); *De la Touche, Ibis*, 1892, p. 502 (Foochow, rare; Swatow, common); *Styan, op. cit.* 1893, p. 437 (Hainan).

Adult male in breeding-plumage (type of species). Head and nape bluish black (a few of the white feathers of winter remaining on Feb. 23rd); a narrow white ring nearly surrounding the eye; neck, tail, and under surface white; mantle of a rather dark shade of pearl-grey; the upper secondaries chiefly grey, but the rest conspicuously white on their exposed terminal portions; outermost primary white, except a hair-line of black on the basal half of the outer web, and a marginal band of black on the inner web; 2nd quill white exteriorly, black on the inner web to the sub-apex; 3rd



Larus saundersi, ad.

similar, but with more black, which reaches the shaft and forms a complete bar (*see cut*); 4th pale grey basally, still barred and margined with black and broadly tipped with white; 5th, the black

restricted to the inner web; 6th and upwards grey, with paler tips and inner borders; under wing-coverts grey, white round the edge of the wing: bill short and stout, black, with a ruddy tinge on the lower mandible; tarsi and toes reddish, the claws rather long, the webs considerably incised. Total length 12·6 inches, culmen 1·4, wing 11, tail 4·4, tarsus 1·6, middle toe with claw 1·25.

The sexes appear to be alike externally.

Adult in winter. Like the above, except as regards the head, which is white, slightly streaked with grey.

Immature. Like the above, except that there is a small black subterminal spot or half bar on the outermost quill, and a narrow blackish line on the margin of the inner web of the 6th quill (ascending).

Young. Similar to the above, but the upper wing-coverts and the long inner secondaries are mottled with brown; the tail has a narrow subterminal band of brown; the black on the four outer primaries extends to the tips and along the greater part of the outer webs: the bill, tarsi, and toes dull brown.

Hab. Inland waters of China and Mongolia, visiting the coast in winter; Nagasaki, Japan (fide *H. Whitely*); Corea, and Eastern Siberia as far north as the mouth of the Amoor (*Taczanowski*).

a. ♂ ad. sk.	O-seu-keo, Amoy, China, Feb. 23 (*R. Swinhoe*).	H. Seebohm Coll. (Type of species.)
b. Juv. sk.	Amoy, China, Dec. (*R. S.*).	H. Seebohm Coll.
c. ♂ ad. sk.	Amoy, China, Feb. (*R. S.*).	H. Saunders Coll.
d. Imm. st.	Nagasaki, Japan (*H. Whitely*).	Purchased.

5. Larus philadelphia.

Sterna philadelphia, *Ord, in Guthrie's Geogr.* 2nd Amer. ed. ii. p. 319 (1815).

Larus minutus (*nec Pall.*), *J. Sabine, App. Franklin's Polar Sea*, p. 696 (1823); *Sw. & Rich. Faun. Bor.-Amer., Birds*, p. 426 (1831).

Larus capistratus (*nec Temm.*), *Bp. Specch. Comp.* p. 69 (1827); *id. Synopsis in Ann. Lyc. N. Y.* ii. p. 358 (1828); *Nutt. Man. Orn.* ii. p. 290 (1834).

Larus melanorhynchus, *Temm. Pl. Col.* livr. 85, tab. 504 (1830: "Chile" [?]); *Gray, Gen. B.* iii. p. 654 (1846).

Larus bonapartii, *Swains. & Richards. Faun. Bor.-Amer., Birds*, p. 425, pl. 72 (1831); *Nutt. Man. Orn.* ii. p. 294 (1834); *Aubub. Orn. Biogr.* iv. p. 212, pl. 324 (1838); *id. Synops.* p. 323 (1839); *id. B. Amer.* 8vo ed. vii. p. 131, pl. 442 (1844); *Giraud, B. Long Isl.* p. 359 (1844); *Gray, Gen. B.* iii. p. 654 (1846); *Thompson, Ann. Nat. Hist.* 1848, p. 192 (near Belfast); *Degl. Orn. Eur.* ii. p. 328 (1849); *Thompson, B. Irel.* iii. p. 317 (1851); *Yarr. Brit. B. 2nd Suppl.* p. 55 (1856); *Schl. Mus. P.-Bas*, Lari, p. 41 (1863); *Degl. et Gerbe, Orn. Eur.* ii. p. 439 (1867); *R. Gray, B. West Scotl.* p. 473 (1871); *Gätke, Vogelw. Helgol.* p. 577 (1891).

Xema bonapartii, *Bp. Comm. List B. Eur. & N. Amer.* p. 62 (1838); *Richards. Journ. Boat-Voy. Rupert's-Ld.* i. pp. 155, 200 (1851: Gt. Slave Lake, nesting on trees).

Gavia bonapartii, *Macgill. Br. B.* v. p. 610 (1852); *Bp. Naumannia*, 1854, p. 213; *id. C. R.* xlii. p. 771 (1856); *Blasius, J. f. O.* 1865, p. 371 (revision).

Chroicocephalus bonapartii, *Bruch, J. f. O.* 1853, p. 105; *id. op. cit.* 1855, p. 292; *Licht. Nomencl. Av.* p. 98 (1854); *Brehm, Naum.* 1855, p. 295.

Chroicocephalus subulirostris, *Bruch, J. f. O.* 1853, p. 105 *.

Gavia subulirostris, *Bp. Naumannia,* 1854, p. 213; *id. C. R.* xlii. p. 771 (1856).

Chroicocephalus philadelphia, *Baird, Cass., & Lawr. B. N. Amer.* p. 852 (1858); *Cooper & Suckley, N. H. Wash. Terr.* p. 276 (1860); *Coues, Pr. Philad. Acad.* 1861, p. 247 (Labrador); *id. op. cit.* 1862, p. 310 (critical); *Blakiston, Ibis,* 1862, p. 10 (Hudson Bay Terr.); *Dall & Bann. Tr. Chicago Ac.* 1869, p. 305 (Alaska); *Newton, P. Z. S.* 1871, p. 57, pl. iv. fig. 6, egg (Arctic America); *Gray, Hand-l. B.* iii. p. 115, no. 10999 (1871); *Allen, Bull. Harv. Coll.* ii. p. 366 (1871: Florida); *id. op. cit.* iii. p. 183 (1872: Great Salt Lake); *Gould, B. Gt. Brit.* v. pl. 65 (1873); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 317 (1874: Mazatlan); *id. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Henshaw, Ann. Lyc. N. Y.* xi. p. 13 (1874: Utah); *Ridgw. Rep. Surv. 40th Par.* p. 639 (1877); *M. Chamberlain, Bull. N. H. Soc. New Brunsw.* p. 62 (1882); *Coues, Check-list N. Amer. B.* p. 122 (1882); *id. Key N. Amer. B.* 2nd ed. p. 751 (1884).

Larus philadelphia, *Gray, Cat. Brit. B.* p. 235 (1863); *Coues, Key N. Amer. B.* p. 316 (1872); *Harting, Handb. Brit. B.* p. 172 (1872); *Coues, Check-list,* no. 556 (1874); *Ridgw. Ann. Lyc. N. Y.* x. p. 381 (1874: Illinois); *Reid, Zool.* 1877, p. 489 (Bermuda); *Merriam, B. Connect.* p. 132 (1877); *Saunders, P. Z. S.* 1878, p. 206 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 399 (1878: distribution); *Rodd, B. Cornwall,* p. 168 (1880); *Cory, B. Bahamas,* p. 209 (1880); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Salvin, Cat. Strickl. Coll.* p. 621 (1882); *C. Smith, Zool.* 1883, p. 120 (Sussex); *Nelson, Cruise 'Corwin,'* p. 108 (1883); *Ridgw. Cat. Fisheries Exhib.* p. 32 (1883); *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1884: Labrador on passage); *Saunders, P. Z. S.* 1884, p. 150 (Loch Lomond, adult); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 260 (1884); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 584 (1884); *S. G. Reid, Bull. U.S. Nat. Mus.* no. 25, p. 267 (1884: Bermuda); *Seebohm, Brit. B.* iii. p. 307 (1885); *Goss, B. Kansas,* 2nd ed. p. 2 (1886); *A. O. U. Check-list N. Amer. B.* p. 91 (1886); *Turner, Contrib. N. H. Alaska,* p. 126 (1886: Kuskokvim Riv.); *Seton, Auk,* 1886, p. 147 (W. Manitoba, breeds); *Nelson, Rep. B. Alaska,* p. 55 (1887); *Ridgw. Man. N. Amer. B.* p. 36 (1887); *Cooke, Rep. B. Migr. Mississippi Vall.* p. 57 (1888); *Saunders, Man. Brit. B.* p. 645 (1889); *Harting, Pr. Linn. Soc.* Dec. 1890, p. 3, and *Zool.* 1891, p. 35 (Cornwall); *Thomps. Pr. U.S. Nat. Mus.* xiii. p. 469 (1890: Manitoba, breeds); *Tristram, Cat. Coll. B.* p. 8 (1891: Vancouver I.); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 418 (1891: Anderson River, breeding); *Hartert, Katal. Vogelsamml. Senckenb.* p. 240 (1891); *Shufeldt, Auk,* 1891, p. 366 (fossil, Oregon).

Larus philadelphicus, *Turnbull, B. East. Pa.* p. 38 (1869).

Chrœocephalus philadelphia, *Coues, Pr. Philad. Acad.* p. 41 (1871: N. Carolina); *Allen, Bull. Harv. Coll.* iii. p. 183 (1872: Gt. Salt Lake); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890).

Larus (Chrœcocephalus) philadelphia, *Coues, B. N.-West,* p. 655 (1874).

Adult in breeding-plumage. Head and upper neck dark plumbeous

* Type in Mainz Museum examined.

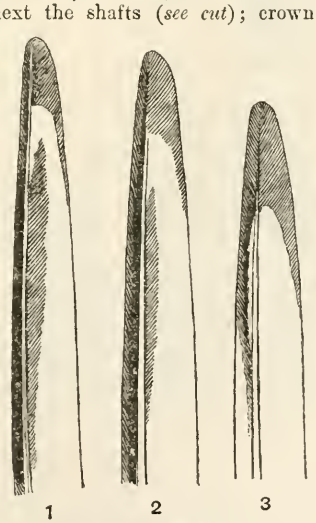
black, with a narrow ring of white nearly enclosing the eye; lower neck, tail, and under surface pure white; mantle pearl-grey, the secondaries scarcely edged with white; the 1st primary white, except on the outer web and across the tip, where it is black; the 2nd is black only across the tip and for a little way up the margin of the inner web; the 3rd and 4th with small white tips, broad black subterminal bars, and much pearl-grey above on the inner webs; the remaining primaries grey, with subterminal bars up to the 7th, where the bar is broken, while on the 8th there is merely a dark margin to the inner web; edge of the wing and the under-coverts white: bill deep black; iris dark brown; tarsi and toes orange-red. Total length 14 inches, culmen 1·5, wing 10·25, tail 4·5, tarsus 1·4, middle toe with claw 1·4.

The sexes appear to be alike in size as well as in plumage.

Adult in winter. Similar, but the head and nape white, mottled with grey, especially on the auricular region; tarsi and toes duller in colour.

Immature. Like the above, but mottled with brown on the upper wing-coverts; brownish centres to the secondaries; a brown subterminal band on the rectrices; blackish-brown bands on both sides of the shafts in the three outer quills, and on the subterminal portions of all the quills; the extreme tips white to a small extent, but soon abraded, except on the four uppermost: bill horn-brown.

Young (August 24th). Similar, but rather more dark colour in the primaries next the shafts (*see cut*); crown brownish grey;



Larus philadelphia, juv.

feathers of the upper neck and mantle tipped or barred with brown and pale buff, and the scapulars broadly edged with dull white.

Hab. North America, breeding in the Fur Countries, and migrating as far south as Bermuda (exceptionally) in winter; occasionally in the United Kingdom, and once in Heligoland.

a. Imm. st.	North America.	Lord Ampthill [P.].
b. Ad. sk.	Godbout, Canada, summer (*N. A. Comeau*).	Salvin-Godman Coll.
c. ♂ juv. sk.	Boston, Massachusetts, autumn.	Salvin-Godman Coll.
d. ♀ juv. sk.	Ipswich, Mass., Aug. 24 (*C. J. Maynard*).	H. Saunders Coll.
e. ♂ imm. sk.	Lyons Falls, New York State, May (*A. J. Dayan*).	Salvin-Godman Coll.
f. Ad. sk.	Lake Michigan, summer.	H. Saunders Coll.
g. ♂ ad. sk.	Chicago, April (*E. W. Nelson*).	Salvin-Godman Coll.
h–u. ♂ ♀ ad., vix ad., et imm. sk.	Washington, D.C., April (*H. W. Henshaw*).	Salvin-Godman Coll.
v. ♂ ad. sk.	Washington, D.C., April (*R. Ridgway*).	Salvin-Godman Coll.
w. Imm. sk.	Fort Macon, N. Carolina, May (*Elliot Coues*).	Salvin-Godman Coll.
x–z, *a′–g′*. ♂ ♀ ad., vix ad., et juv. sk.	Corpus Christi, Texas, Dec., Jan. (*F. B. Armstrong*).	Salvin-Godman Coll.
h′, *i′*. ♂ ♀ vix ad. et juv. sk.	Ventura, California, Nov. (*Henshaw*).	Salvin-Godman Coll.
k′, *l′*. ♂ ♀ ad. sk.	San Mateo, California, April (*Hepburn*).	H. Saunders Coll.
m′. Vix ad. sk.	49th Parallel (*J. K. Lord*).	N. Amer. Boundary Comm. [P.].
n′. Juv. sk.	Fraser River (*J. K. L.*).	N. Amer. Boundary Comm. [P.].
o′. Juv. sk.	Vancouver Is. (*J. K. L.*).	N. Amer. Boundary Comm. [P.].
p′, *q′*. ♂ ♀ ad. et vix ad. sk.	St. Michael's, Alaska, Sept. (*E. W. Nelson*).	Salvin-Godman Coll.
r′. ♂ ad. sk.	Ugashik River, Alaska, Sept. (*U.S. Nat. Mus.*).	Salvin-Godman Coll.
s′. Ad. st.	North-West America.	Purchased.
t′. Skeleton.	North America.	Purchased.
u′. Skeleton.	Monterey, California.	J. H. Gurney, Esq. [P.].

6. Larus serranus.

Larus serranus, *Tsch. Wiegm. Arch.* 1844, pt. i. p. 314; *id. Faun. Peruan., Aves*, pp. 53, 307 (1845–46); *Gray, Gen. B.* iii. p. 654 (1846); *id. Hand-l. B.* iii. p. 115, no. 10992 (1871); *Scl. & Salv. P. Z. S.* 1871, p. 577 (Neotropical: revision); *Allen, Bull. Harvard Coll.* iii. p. 359 (1872: Lake Titicaca, breeds in Feb.); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873); *Saunders, P. Z. S.* 1878, p. 196 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 399 (1878: distribution); *Scl. & Salv. P. Z. S.* 1879, p. 641 (Bolivia); *Saunders, P. Z. S.* 1882, p. 525 (Callao Bay); *Taczan. Orn. Pérou*, iii. p. 452 (1886); *Scl. P. Z. S.* 1886, p. 404 (Tarapacá); *MacFarl. Ibis*, 1887, pp. 204, 207 (Callao Bay); *Scl. P. Z. S.* 1891, p. 137 (Tarapacá); *Hartert, Kat. Vogelsamml. Senckenb.* p. 241 (1891: Valdivia, Chile); *Berlepsch & Stolzmann, P. Z. S.* 1892, p. 400 (Callao).

Xema cirrhocephalum (*nec Gray*), *Peale, Zool. U.S. Expl. Exp., Birds*, p. 289 (1848).

Chroicocephalus personatus, *Bruch, J. f. O.* 1853, p. 104; *id. op. cit.* 1855, p. 289; *Licht. Nomencl. Av.* p. 98 (1854: Peru).
Gavia serrana, *Bp. Rev. Zool.* 1855, p. 19.
Gavia personata, *Bp. C. R.* xlii. p. 771 (1856); *Blas. J. f. O.* 1865, p. 372.
Larus glaucotes (*nec Meyen*), *Cass. U.S. Expl. Exp., Orn.* p. 381 (1858: Chile).
Larus personatus, *Schleg. Mus. P.-Bas,* Lari, p. 35 (1863).
Larus bonapartii, *Scl. & Salv. P. Z. S.* 1868, p. 178 (Tambo, Peru).

Adult male in breeding-plumage. Head and nape black, slightly sooty on the forehead and jet-black at the junction with the white neck and throat; a small white semicircle behind the eye; mantle pale pearl-grey; wing-coverts, inner secondaries, and the two upper primaries darker grey; edge of wing white; outer quills chiefly black on the upper part, with white shafts; the 1st with a black tip, a large white subterminal mirror, and the black touching the shaft on both webs; the 2nd with a similar tip and mirror, but the black slightly separated from the shaft on the outer web; the 3rd with a smaller mirror but more white on the outer web (*see cut*);

Larus serranus, ad.

the 4th and 5th with white along the shaft on both webs; the 6th, 7th, and 8th with a gradual diminution of black, till that colour becomes a mere fringe on a grey ground in the 8th; the extreme tips of all except the two outermost greyish white in mature birds, but black up to the 5th or 6th in the majority; tail and under

surface white; under wing-coverts grey; underside of the quills sooty black, except the mirrors and shafts which are white, in strong contrast: bill lake-red; tarsi and toes rather darker red. Total length 19 inches, culmen 1·9, wing 14·25, tail 6, tarsus 2·1, middle toe with claw 1·9.

The *female* appears to be slightly smaller than the male.

Adult in winter. Like the above, except that the head is white, with greyish streaks and mottlings which are darkest about the orbits and auriculars.

Immature. Like the above, with a larger proportion of black in the primaries, and duller colours in the bill, tarsi, and toes.

Young (Aug. 2nd). Similar, but the occiput more streaked and the upper neck mottled with dull brown; brown markings along the wing-coverts and on the long inner secondaries, the other secondaries chiefly ash-brown except on the inner margins; primaries with more black, but the same plan of pattern; tail white, with an imperfect subterminal blackish bar (probably complete in younger birds): bill, tarsi, and toes brown.

Hab. The Andean lakes (breeding), and the coasts of Ecuador, Peru, and Chile. Not on the Eastern or Argentine side of the Andes.

a. Ad. sk.	Chile, winter (*Cuming*).	Purchased.
b. Ad. st.	Chile, summer (*Cuming*).	Purchased.
c. ♀ ad. sk.	Chilean Andes, 7000 ft. (*E. C. Reed*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Sacaya, Chile, Jan.	H. Berkeley James, Esq. [P.].
e, *f*. ♂ ♀ ad. sk.	Huasco, Chile, Feb.	H. B. James, Esq. [P.].
g, *h*. ♀ ad. sk.	Prov. Tarapacá, N.Chile, Jan., Feb.	H. B. James, Esq. [P.].
i, *k*. Ad. sk.	Lake Titicaca, Andes (*Messrs. Veitch*).	Salvin-Godman Coll.
l, *m*, *n*. ♂ ♀ ad. et imm. st.	Tinta, Peruvian Andes (*H. Whiteley*).	Purchased.
o. Ad. sk.	Tinta, Peruvian Andes, July (*H. W.*).	Salvin-Godman Coll.
p. Ad. sk.	Tinta, Peruvian Andes, May (*H. W.*).	H. Saunders Coll.
q. ♂ ad. sk.	Laguna de Lanjui, Peruvian Andes, Feb. (*H. W.*).	Salvin-Godman Coll
r. Imm. sk.	Tambo, near Islay, Peru, Oct. (*H. W.*).	Salvin-Godman Coll.
s. Imm. sk.	Islay, coast of Peru, Oct. (*Commr. J. R. H. MacFarlane*).	H. Saunders Coll.
t. ♂ ad. sk.	Callao Bay, coast of Peru, Aug. (*Admiral A. H. Markham*).	H. Saunders Coll.
u, *v*. Ad. et imm. sk.	Callao Bay, coast of Peru, Aug., Sept. (*Commr. MacFarlane*).	H. Saunders Coll.
w. Ad. sk.	Colta, Ecuador, Dec. (*C. Buckley*).	Salvin-Godman Coll.

7. Larus franklini.

Larus atricilla (*nec L.*), *Sabine, App. Franklin's Polar Sea*, p. 695 (1823).

Larus franklini, *Swains. & Richards. Faun. Bor.-Amer., Birds*, p. 424, pl. lxxi. (1831); *Audub. Orn. Biogr.* v. p. 323 (1839); *id. Synops.* p. 325 (1839); *id. B. Amer.* 8vo ed. vii. p. 145 (1844); *Gray, Gen. B.* iii. p. 654 (1846); *Gay, Faun. Chil., Zool.* i. p. 482 (1847); *Schleg. Mus. P.-Bas*, Lari, p. 36 (1863); *Scl. & Salv. P. Z. S.* 1871, p. 577 (revision; Neotropical); *Gray, Hand-l. B.* iii. p. 115, no. 10990 (1871); *Newton, P. Z. S.* 1871, p. 57, pl. iv. fig. 4 (egg: Manitoba); *Coues, Key N. Amer. B.* p. 316 (1872); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873); *Saunders, P. Z. S.* 1878, p. 195 (revision Larinæ); *Coues, Bull. U. S. Geol. Surv.* iv. p. 655 (1878: Dakota); *Roberts & Benner, Bull. Nutt. Orn. C.* v. p. 20 (1880: Minnesota); *Ridgw. Bull. U. S. Nat. Mus.* no. 21, p. 52 (1881); *Salvin, Cat. Strickl. Coll.* p. 621 (1882); *Saunders, P. Z. S.* 1882, p. 524 (Peru & Chile); *Ridgw. Cat. Fisheries Exhib.* p. 32 (1883); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 258 (1884); *Agersb. Auk*, 1885, p. 289 (Dakota); *Seton, op. cit.* 1886, p. 147 (W. Manitoba); *A. O. U. Check-l. N. Amer. B.* p. 91 (1886); *Goss, B. Kansas*, 2nd ed. p. 2 (1886); *Taczan. Orn. Pérou*, iii. p. 451 (1886); *Ferrari-Perez, Pr. U.S. Nat. Mus.* ix. p. 179 (1886: State of Puebla); *J. R. H. MacFarl. Ibis*, 1887, pp. 204 & 207 (Callao Bay); *Ridgw. Man. N. Amer. B.* p. 36 (1887); *Cooke, Rep. B. Migr. Mississip. Vall.* p. 56 (1888); *Merriam, Rep. Orn. & Mamm. Dep. Agric.* 1887, p. 431 (1888); *Thomps. Pr. U. S. Nat. Mus.* xiii. p. 469 (1890: Manitoba, breeds); *Hartert, Katal. Vogelsamml. Senckenb.* p. 241 (1891: Chile); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 418 (1891); *Berl. & Stolzm. P. Z. S.* 1892, p. 400 (Peru); *Rhoads, Pr. Philad. Acad.* 1892, p. 101 (Corpus Christi Bay, Texas, June).

Larus pipixcan, *Wagl. Isis*, 1831, p. 515; *Gray, Gen. B.* iii. p. 654 (1846).

Xema franklini, *Bp. Comp. List B. Eur. & N. Am.* p. 62 (1838); *Boie, Isis*, 1844, p. 194; *Gray, List B. Brit. Mus.*, Anseres, p. 172 (1844).

Xema pipixcan, *Boie, Isis*, 1844, p. 194.

Larus cucullatus, *Reichenb. Natat.* tab. xxiii. fig. 296 (1848: *ex Licht. MSS.*; Mexico); *Salvin, Ibis*, 1865, p. 188 (Chiapam).

Chroicocephalus franklini, *Bruch, J. f. O.* 1853, p. 104; *id. op. cit.* 1855, p. 289; *Baird, Cass., & Lawr. B. N. Amer.* p. 851 (1858); *Blakiston, Ibis*, 1862, p. 10 (Saskatchewan); *Coues, Pr. Philad. Acad.* 1862, p. 310; *Snow, B. Kansas*, p. 12 (1873); *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 317 (1874: Mazatlan); *Coues, Check-list N. Amer. B.* p. 122 (1882); *Coues, Key N. Amer. B.* 2nd ed. p. 751 (1884).

Chroicocephalus cucullatus, *Bruch, J. f. O.* 1853, p. 104; *id. op. cit.* 1855, p. 290; *Licht. Nomencl. Av.* p. 98 (1854: Mexico); *Baird, Cass., & Lawr. B. N. Amer.* p. 851 (1858); *Coues, Pr. Philad. Acad.* 1862, p. 309; *id. Ibis*, 1864, p. 388 (Chiapam); *Salvin, op. cit.* 1866, p. 198.

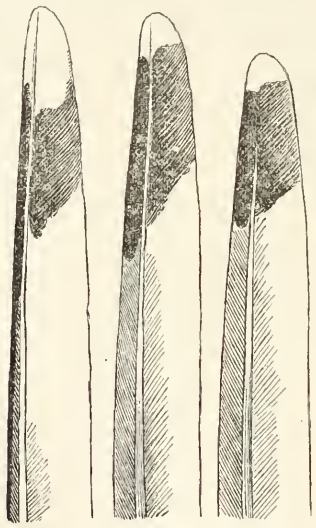
Chroicocephalus kitlitzii, *Bruch, J. f. O.* 1853, p. 104 (described from a drawing; *nec Swinhoe, P. Z. S.* 1860, *which* = L. saundersi).

Chroicocephalus schimperi, *Bruch, J. f. O.* 1853, p. 104 (*nec Schleg.* 1863, *which* = L. saundersi).

? Chroicocephalus serranus (*nec Tsch.*), *Bruch, J. f. O.* 1853, p. 106 (Peru).

Gavia cucullata, *Bp. C. R.* xlii. p. 771 (1856).
Gavia pipixcan, *id. t. c.* p. 771.
Gavia franklini, *id. t. c.* p. 771; *Blasius, J. f. O.* 1865, p. 371.
Gavia kitlitzii, *id. t. c.* p. 771.
Larus cinereo-caudatus, *Phil. & Landb. Wiegm. Arch.* 1861, p. 293.
? Chroicocephalus atricilla, *Sclater, P. Z. S.* 1864, p. 179 (Mexico City).
[?] Larus franklini, *Sundev. Œfv. Akad. Forh. Stockh.* 1869, p. 590 (St. Bartholomew, W. I., "in breeding-plumage").
Larus (Chrœcocephalus) franklini, *Coues, B. N.-West*, p. 653 (1874).
Melanolarus franklini, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890).

Adult in breeding-plumage. Head and upper part of the neck plumbeous black, with a conspicuous elongated white patch above, and another below, the eye; lower part of the neck all round, rump, and under surface white, with a rosy tinge which is deepest on the breast and abdomen; mantle bluish grey, the secondaries broadly edged with white; primaries all broadly tipped with white, and bluish grey next the shafts on their upper parts, except the outermost, which has a blackish outer web and is chiefly white on the inner web, with a broad black subterminal bar; 2nd quill with a deeper (2·2 in.) black bar, smaller white tip, and much grey above on both



Larus franklini, ad.

sides of the shaft (*see cut*); 3rd, 4th, and 5th similar, but the black bar narrowing, until at the last it is merely as deep as the white tip and is cut off from the grey above by a white space; succeeding

quills broadly edged with white on the inner webs; tail-feathers white, except the two or three central pairs, which are tinged with palest grey: bill deep red, with a dark subterminal band; tarsi and toes dark livid red (drying blackish). Total length 13·5 to 14 inches, culmen 1·6, wing 11·25, tail 4·6, tarsus 1·6, middle toe with claw 1·5.

The sexes appear to be alike externally.

In less mature birds there is a narrow black bar above the terminal white of the 1st quill, thus dividing the white into a tip and a 'mirror.'

Adult in winter. Like the above, except that the head is white, spotted and mottled with blackish on the upper surface.

Immature. Similar, but there is a larger proportion of black in the five outer primaries, the shafts of which are blackish to grey, and the 6th quill has more or less of a black subterminal bar; shafts of the middle pairs of tail-feathers hair-lined with black: bill, tarsi, and toes reddish black.

Young (August). Forehead dull white; crown and nape greyish brown, darkest below and behind the eye, which retains its white patches; neck ash-colour; feathers of the mantle grey above and ash-brown centrally or subterminally, with pale drab tips; the five outer quills chiefly black, with small white tips which increase in size ascendingly; in the 6th quill the outer web is chiefly grey, barred with black, and in the succeeding quills the dark colour is restricted to the inner webs; tail-feathers grey, subterminally banded with black and tipped with buffish grey, except the outermost pair; underparts white: bill and tarsi brown. By the following November the middle of the mantle has become bluish grey, the sooty colour of the primaries is perceptibly paler on the margins of the inner webs, and the blackish bar has considerably diminished in size on the 2nd of the rectrices from the outside.

Hab. Interior of North America, from the western shores of Hudson Bay and Manitoba inwards, up to Great Bear Lake (breeding); southwards on migration, along—and west of—the Mississippi Valley, to Corpus Christi, Texas; through Mexico, and down the Pacific coast, as far as Chile. Once at St. Bartholomew I., West Indies (*fide* Sundevall). Breeds in marshes.

a. Ad. sk.	Hayes River, west side of Hudson Bay.	H. Saunders Coll.
b, *c*. Imm. sk.	North-West America.	Capt. Kellett & Lt. Wood, R.N. [P.].
d. Juv. sk.	49th Parallel, N.W. Amer., Sept. 1874.	North American Boundary Commission [P.].
e, *f*. ♂ vix ad.	Aransas Bay, S. Texas, June (*F. B. Armstrong*).	Salvin-Godman Coll.
g–*m*. ♂ ♀ ad.; *n*, *o*. ♂ juv. sk.	Corpus Christi, Texas, April 30 and Sept. 30, Oct. 7 (*F. B. A.*)	Salvin-Godman Coll.
p. Ad. sk.	Progreso, Yucatan, autumn (*F. Nicholson*).	Salvin-Godman Coll.

q. ♂ ad. sk.	Mexico.	Purchased.
r. Ad. sk.	Mexico, winter.	Salvin-Godman Coll.
s. ♂ juv. sk.	Zacatecas, Mexico, August (*W. B. Richardson*).	Salvin-Godman Coll.
t. Ad. sk.	Near City of Mexico.	Salvin-Godman Coll.
u–*w*. ad., vix ad., et juv. sk.	West coast of Mexico.	H. Saunders Coll.
x–*c'*. ♂ ♀ ad.; *d'*. ♂ imm. sk.	Champerico, Guatemala, May 30, 1873 (*O. Salvin*).	Salvin-Godman Coll.
e'. ♀ juv. sk.	Chiapam, Guatemala, Jan. 1863 (*O. S.*).	Salvin-Godman Coll.
f'. ♂ juv. sk.	Payta, Peru, Jan. 7 (*Adml. Markham*).	H. Saunders Coll.
g'. Imm. sk.	Callao Bay, Peru, Jan. (*R. Jump*).	H. Saunders Coll.
h'–*k'*. Ad. et imm. sk.	Callao Bay, April 11 (*Commr. J. R. H. MacFarlane*).	H. Saunders Coll.
l'–*n'*. Juv. et imm. sk.	Iquique, winter (*S. F. Rowland*).	H. Saunders Coll.
o'–*q'*. ♂ ♀ imm. et juv. sk.	Coquimbo, Nov. (*Adml. Markham*).	H. Saunders Coll.
r'. Ad. sk.	Coquimbo (in full breeding-plumage) (*Adml. Markham*).	H. Saunders Coll.
s'. Ad. st.	Valparaiso.	Sir W. Burnett & Capt. Fitzroy, R.N. [P.].
t'. ♀ juv. sk.	Chile (*Verreaux*).	Salvin-Godman Coll.

8. Larus atricilla.

Laughing Gull, *Catesby, Nat. Hist. Carol.* i. p. 89, pl. 89 (1733); *Lath. Gen. Syn.* iii. pt. 2, p. 383 (1785: chiefly); ? *Montagu, Orn. Dict.* i. (1802: Winchelsea, juv.); *Yarr. Brit. B.* iii. p. 439 (1843: *ex Montagu*).

La Mouette rieuse, *Briss. Orn.* vi. p. 192, pl. xviii. fig. 1 (1760).

Larus atricilla, *Linn. Syst. Nat.* i. p. 225 (1766: *ex Catesby*); *Gm. S. N.* i. p. 600 (1788); *Lath. Ind. Orn.* ii. p. 813 (1790: part.); *Temm. Man. d'Orn.* ed. 2, pt. ii. p. 779 (1820: the adult, but the young=*L. melanocephalus*); *Brehm, Lehrb.* p. 722 (1824); ? *Bp. Obs. Nomencl. Wilson's Orn.* no. 246 (1826); *id. Ann. Lyc. N. Y.* ii. p. 359 (1828); *Jard. ed. Wilson's Amer. Orn.* iii. p. 216, pl. 74. fig. 4 (1832); ? *Rennie's ed. Mont. Orn. Dict.* p. 259 (1833); *Nuttall, Man. Orn.* ii. p. 291 (1834); *Jenyns, Man. Brit. Verteb.* p. 274 (1835: *ex Montagu*); *Audub. Orn. Biogr.* iv. p. 118, pl. 314 (1838); *id. Synop.* p. 324 (1839); *D'Orbigny in Sagra's Hist. Nat. Cuba*, p. 212 (1839); *Keys. u. Blas. Wirb. Eur.* pp. xcvi, 243 (1840); *Temm. Man. d'Orn.* 2e éd. 4e pte. p. 483 (1843); *Schl. Rev. Crit.* p. cxxvii (1844); *Giraud, B. Long Isl.* p. 358 (1844); *Audub. B. Amer.* 8vo ed. vii. p. 136, pl. 443 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 557 (1845: *ex Montagu*); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 321 (1849); *Wedderb. in Jard. Contr. Orn.* 1850, p. 38 (Bermudas); *Meyer, Brit. B.* vii. p. 131, pl. 303 (1857); *Jones, Nat. Bermuda*, p. 92 (1859: once); *Gray, Cat. Brit. B.* p. 234 (1863: "Winchelsea" [error; not Montagu's specimen]); *Schl. Mus. P.-Bas*, Lari, p. 44 (1863); *Salvin, Ibis*, 1865, pp 188, 190 (Guatemala); *Degl. & Gerbe, Orn. Eur.* ii. p. 431 (1867); *Sundev. Œfv. K. Vet.-Akad. Stockh. Forh.*

1869, p. 590 (St. Bartholomew, W. I.); *Gray, Hand-l. B.* iii. p. 114, no. 10989 (1871); *Pelz. Orn. Bras.* p. 323 (1871: Pará, Feb.); *Scl. & Salv. P. Z. S.* 1871, p. 576 (revision, Neotropical); *Harting, Handb. Brit. B.* p. 175 (1872); *Coues, Key N. Amer. B.* p. 315 (1872); *id. Check-list*, no. 554 (1873); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873); *Reid, Zool.* 1877, p. 489 (Bermudas); *Taczanowski, P. Z. S.* 1877, p. 749 (Tumbes, Peru); *Merriam, B. Connect.* p. 132 (1877); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 64 (1878: S. Texas); *Saunders, P. Z. S.* 1878, p. 194 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 400 (1878: distribution); *Cory, B. Bahamas*, p. 208 (1880); *A. & E. Newton, Handb. Jamaica*, p. 117 (1881); *Maynard, B. East. N. Amer.* p. 485 (1881); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Salvin, Cat. Strickl. Coll.* p. 620 (1882); *Ridgw. Cat. Fisheries Exhib.* p. 31 (1883); *Cory, B. S. Domingo*, p. 177 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 254 (1884); *Saunders, P. Z. S.* 1884, p. 150; *id. 4th ed. Yarr. Brit. B.* iii. p. 606, footnote (1884: the specimen in Brit. Mus. is not Montagu's); *A. O. U. Check-list N. Amer. B.* p. 90 (1886); *Ferrari-Perez, Pr. U.S. Nat. Mus.* ix. p. 179 (1886: Vera Cruz); *Wells, t. c.* p. 631 (Grenada I.); *Taczan. Orn. Pérou*, iii. p. 450 (1886: Sta. Lucia); *Ridgw. Man. N. Amer. B.* p. 35 (1887); *Cooke, B. Migr. Mississippi Vall.* p. 56 (1888); *Cory, Auk*, 1888, p. 75 (West Indies); *Scott, t. c.* p. 374 (Florida); *Salvin, Ibis*, 1889, p. 379 (Cozumel); *Feilden, t. c.* p. 502 (Barbados; breeds round Grenada); *Cory, B. West Ind.* p. 276 (1889); *id. B. Bahamas*, 2nd ed. p. 208 (1890); *Scott, Auk*, 1890, p. 306 (Dry Tortugas: breeds); *Schick, t. c.* p. 326 (New Jersey: breeds); *Cory, Auk*, 1891, p. 46 (Antigua), p. 48 (Guadeloupe); *Northrop, t. c.* p. 80 (Andros I., Bahamas); *Scott, t. c.* p. 362 (Jamaica); *Cory, Cat. West Ind. B.* p. 82 (1892); *Rhoads, Pr. Philad. Acad.* 1892, p. 101 (Texas: breeding); *Cory, Auk*, 1892, p. 48 (Maraguana and Watling Is.); *Hartert, Ibis*, 1893, p. 311 (Aruba, Curaçao, Bonaire); *Mackay, Auk*, 1893, p. 333 (Massachusetts: breeding); *Field, Auk*, 1894, p. 120 (Jamaica).

Larus ridibundus (*nec* L.), *Wilson, Amer. Orn.* ix. p. 89, pl. 74. fig. 4 (1814); *Léot. Ois. Trinidad*, p. 532 (1866).

Xema atricilla, *Boie, Isis*, 1822, p. 563; *Gould, B. Eur.* v. pl. 426 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *Gray, List B. Brit. Mus.*, Anseres, p. 172 (1844); *Gosse, B. Jamaica*, p. 437 (1847); *Cab. in Schomb. Guiana*, iii. p. 761 (1848); *Schomb. Hist. Barbadoes*, p. 682 (1848).

Larus plumbiceps, *Brehm* (*nec Temm.*), *Lehrb.* p. 722 (1824: part.).

Gavia atricilla, *Macgill. Man. Br. Orn.* ii. p. 240 (1842); *id. Br. B.* v. p. 585 (1852); *Blasius, J. f. O.* 1865, p. 378 (revision).

Chroicocephalus atricilla, *Bruch, J. f. O.* 1853, p. 106; *Licht. Nomencl. Av.* p. 98 (1854: Porto Rico); *Baird, Cass., & Lawr. B. N. Amer.* p. 850 (1858); *Baird, Mex. Bound. Surv.* p. 271 (1859); *Scl. & Salv. Ibis*, 1859, p. 233 (Belize); *Coues, Pr. Philad. Acad.* 1862, p. 310 (critical); *Lawr. Ann. Lyc. N. Y.* viii. p. 103 (1864: Sombrero I., West Ind.); *Coues & Salv. Ibis*, 1864, p. 388 (Chiapam); *Dresser, Ibis*, 1866, p. 44 (Texas); *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 17 (1874: Mazatlan); *Gundl. Orn. Cuba*, p. 308 (1876); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 51 (1876: Tehuantepec); *Zeledon, Cat. Aves Costa Rica*, p. 36 (1882); *Coues, 2nd ed. Check-l. N. Amer. B.* p. 122 (1882); *Stearns & Coues, New Engl. B.-Life*,

ii. p. 351 (1883); *Coues, Key N. Amer. B.* 2nd ed. p. 750 (1884).
Atricilla catesbyi, *Bruch, J. f. O.* 1855, p. 287; *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890).
Atricilla megalopterus, *Bruch, J. f. O.* 1855, p. 287.
Atricilla micropterus, *Bruch, J. f. O.* 1855, p. 288.
Atricilla catesbæi, *Bp. C. R.* xlii. p. 771 (1856); *Loche, Expl. Sc. Algér., Ois.* ii. p. 189 (1867).
Atricilla macroptera, *Bp. C. R.* xlii. p. 771 (1856).
Atricilla minor, *Bp. C. R.* xlii. p. 771 (1856).
Chrœcocephalus atricilla, *A. & E. Newton, Ibis*, 1859, p. 371 (S. of St. Croix, W.I., and St. Thomas); *Coues, Pr. Philad. Acad.* 1871, p. 40 (N. Carolina); *Allen, Bull. Harv. Coll.* ii. p. 366 (1871: Florida).
Larus (Chrœcocephalus) atricilla, *Coues, B. N.-West*, p. 650 (1874).

Adult male in breeding-plumage. Head and upper neck dark sooty black; an elongated white patch above, and another below the eye; lower neck, tail, and the under surface white, with a slight rosy tinge on the latter; mantle slate or lead-grey (decidedly less blue than in *L. franklini*); secondaries broadly tipped with white, as are the four inner primaries; the next quill (descending) similar, but with a faint edge of black to the inner web; the two following darker grey above, with broad black subterminal bands, the next two almost black: all of these with white tips; the outermost quill wholly black; under wing-coverts white, passing into grey at the quill-lining: bill lake-red; tarsi and toes dull red (drying reddish brown). Total length 16·5 inches, culmen 2, wing 13, tail 5·25, tarsus 2·1, middle toe with claw 1·75. The *female* appears to be a trifle smaller on average.

Adult in winter plumage. Like the above, except that the head is white, streaked and mottled with dark grey, while the bill, tarsi, and toes are nearly black. The new primaries have attained their full development early in March, by which time the roseate tint on the underparts (*said* to be lost in winter) has certainly reappeared.

Immature. Similar, but the head, nape, and sides of the neck are streaked with ash-brown; the secondaries have dark markings next the shafts; the five outer primaries sooty black, untipped with white, and the two following with only small white tips; tail-feathers greyish, with more or less of a black subterminal bar on all, or on all except the central pair, according to age.

Young (autumn). Upper parts mottled with ash-brown; primaries chiefly dark brown; tail-coverts white; rectrices dark grey at the basal portion and umber-brown subterminally, tipped with white; abdomen white; breast, under wing-coverts and flanks mottled with ash-brown; tarsi and toes dark brown. At an earlier age (August) the ash-brown on the upper parts is more pronounced, and the feathers of the mantle are edged with warm buff.

Nestling. Tawny buff, spotted and mottled with dark brown on the upper surface, throat, and flanks.

Hab. North America, chiefly on the East Coast and its tidal waters, down to the Mexican Gulf and West Indies (breeding); on

migration to the Guianas and N. Brazil, exceptionally to Bermuda; across the Isthmus to the Pacific side, up to Northern Mexico and California and down to Northern Peru. No authentic record for England or any part of Europe.

A coast species.

a. Imm. st.	"Winchelsea" [?].	
b. Ad. st.	North America.	J. Gould [C.].
c. Ad.; *d*. Juv. sk.	North America (*Krider*).	H. Saunders Coll.
e. Ad. sk.	Cherrystone, Virginia, Aug. (*McDonald*).	Salvin-Godman Coll.
f–k. ♂ ♀ ad.; *l*. ♀ juv.; *m*, *n*. Pull. sk.	Cobb's Id., Va., July, Aug. (*Henshaw Coll.*).	Salvin-Godman Coll.
o. ♂ pull. sk.	Cobb's Id., Va., July 16 (*W. Brewster*).	H. Saunders Coll.
p, *q*. Pull. st.	Rapeza Marsh, Va., July 3 (*R. Ridgway*).	H. Saunders Coll.
r–b'. ♂ ♀ ad.; *c'*. ♂ vix ad. sk.	Corpus Christi Pass, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
d'–g'. ♂ ♀ ad. sk.	Corpus Christi, Texas, May and Nov. (*F. B. A.*).	Salvin-Godman Coll.
h'. Juv. sk.	Progreso, Yucatan (*F. Nicholson*).	Salvin-Godman Coll.
i'–r'. Ad. et imm. sk.	Cozumel Id., Yucatan, Feb. (*G. F. Gaumer*).	Salvin-Godman Coll.
s'. Ad. sk.	Vera Paz (*Hague*).	Salvin-Godman Coll.
t'. Ad. sk.	Belize, May 1862 (*O. Salvin*).	Salvin-Godman Coll.
u', *v'*. ♂ ♀ ad. sk.	Lighthouse reef, British Honduras, May 10, 1862 (*O. S.*).	Salvin-Godman Coll.
w'. ♂ imm. sk.	St. Kitts, W. I. (*ex Zoological Soc.*).	H. Saunders Coll.
x'. ♂ ad. sk.	Antigua, W. I., June (*C. S. Winch*).	Salvin-Godman Coll.
y'. ♂ ad. sk.	Guadeloupe, W. I., Aug. (*C. S. W.*).	Salvin-Godman Coll.
z', *a''*. Ad. st.	St. Vincent, W. I., April and May (*D. W. Smith*).	Salvin-Godman Coll.
b''. ♀ ad. sk.	Grenadines, W. I., June (*D. W. S.*).	Salvin-Godman Coll.
c'', *d'*. ♂ ♀ ad.; *e''*. Juv. sk.	Grenada, W. I., June, Sept. (*D. W. S.*).	Salvin-Godman Coll.
f''. Imm. st.	British Guiana.	Sir R. Schomburgk [P.].
g''. Juv. sk.	British Guiana (*H. Whiteley*).	H. Saunders Coll.
h''. Ad. sk.	Surinam (*Dr. W. Kirke*).	H. Saunders Coll.
i''–n''. ♀ ad., imm., et juv. sk.	Chiapam, Pacific coast, Jan. 1863 (*O. S.*).	Salvin-Godman Coll.
o''. ♂ ad. sk.	Manzanilla, Colima, Mexico, June (*W. Lloyd*).	Salvin-Godman Coll.
p''. Ad. sk.	North Mexico, Pacific coast (*G. N. Mathew, R.N.*).	H. Saunders Coll.
q''. Ad. st.	"San Francisco, California."	G. Barclay, Esq. [P.].
r''. Skeleton.	Monterey, California.	J. H. Gurney, Esq. [P.].

9. Larus cirrhocephalus.

La Gabiota cenicienta, *Azara, Apunt.* iii. p. 350 (1802: Argentina).
Larus cirrhocephalus, *Vieillot, Nouv. Dict. d'Hist. Nat.* xxi. p. 502 (1818: Brazil); *id. Enc. Méth.* p. 345 (1824); *id. Gal. Ois.* ii. p. 223, pl. 289 (1834); *Hartl. Ind. Azara*, p. 26 (1847); *Gay, Hist. Chile, Zool.* i. p. 482 (1847: copied from Vieill.); *Blyth, Cat. B. Mus. A. S. B.* p. 289 (1849: Peru); *Schlegel, Mus. P.-Bas*, Lari, p. 37 (1863: partim); *Scl. & Salv. P. Z. S.* 1871, p. 578; *iid. Nomencl. Av. Neotrop.* p. 148 (1873); *Saunders, P. Z. S.* 1874, p. 292 (critical); *Durnford, Ibis*, 1877, p. 201 (Prov. of Buenos Ayres); *Saunders, P. Z. S.* 1878, p. 204 (revision Larinæ); *Gibson, Ibis*, 1880, p. 163; *Saunders, P. Z. S.* 1882, p. 525 (Payta, Peru); *Taczan. Orn. Pérou*, iii. p. 455 (1886); *J. R. H. MacFarl. Ibis*, 1887, p. 208 (Payta); *Scl. & Hudson, Argent. Orn.* ii. p. 201 (1889); *Holland, Ibis*, 1890, p. 428; *id. op. cit.* 1892, p. 213 (Prov. Buenos Ayres); *Oustalet, Miss. Sc. Cap Horn*, vi. p. 308 (1891); *Berlepsch & Stolzm. P. Z. S.* 1892, p. 400 (Peru); *Aplin, Ibis*, 1894, p. 211 (Monte Video); *Holland, Ibis*, 1895, p. 216 (Prov. B. Ayres, nesting in company with *L. maculipennis*).
Larus poliocephalus, *Temm. Man. d'Orn.* ii. p. 780 footnote (1820: Brazil); *Lesson, Traité*, p. 618 (1831: Brazil): *Neuwied, Beitr. Naturg. Bras.* iv. p. 854 (1833); *cf. Salv. Ibis*, 1874, p. 320.
Larus poiocephalus (sic), *Swains. B. W. Afr.* ii. p. 245, pl. 29 (1837 *: Senegambia); *Layard, B. S. Afr.* p. 368 (1867: partim); *Gray, Hand-l. B.* iii. p. 115, no. 10996 (1871); *Bocage, J. f. O.* 1876, p. 293 (Cunene, Benguela); *Reichenow, Vög. Deutsch-Ost-Afr.* p. 20 (1894: Victoria Nyanza).
Xema poiocephala (partim), *Gray, List B. Brit. Mus.*, Anseres, p. 173 (1844: Gambia).
Xema phœocephala, *Strickl. & Scl. in Jard. Contrib. Orn.* 1852, p. 160 (Damara-land).
Chroicocephalus cirrhocephalus, *Bruch, J. f. O.* 1853, p. 106 (South America); *Licht. Nomencl. Av.* p. 98 (1854: S. Africa and Monte Video).
Cirrhocephalus plumbiceps, *Bruch, J. f. O.* 1855, p. 288 (S. America).
Cirrhocephalus major, *Bp. C. R.* xlii. p. 771 (1856).
Cirrhocephalus minor, *Bp. C. R.* xlii. p. 771 (1856).
Larus maculipennis (*nec Licht.*), *Burm. Th. Brasil.* iii. p. 448 (1856: Brazil coast); *id. La Plata-Reise*, ii. p. 518, no. 256 (1861: Paraná); *Pelz. Orn. Bras.* p. 323 & p. 461 (1871).
Larus phæocephalus, *Hartl. Orn. W.-Afr.* p. 252 (1857); *id. J. f. O.* 1861, p. 273; *Chapman, Trav. S. Afr.* ii. p. 425 (1868: Lake Ngami); *Finsch & Hartl. Vög. Ost-Afr.* p. 825 (1870); *Saunders, P. Z. S.* 1874, p. 292 (critical); *id. P. Z. S.* 1878, p. 204 (revision Larinæ); *Bocage, Orn. Angola*, p. 507 (1881: Humbe); *Salvin, Cat. Strickl. Coll.* p. 621 (1882: Damara-ld.); *Sharpe, ed. Layard's B. S. Afr.* p. 699 (1884); *Hartert, Kat. Vogelsamml. Senckenb.* p. 241 (1891); *Rendall, Ibis*, 1892, p. 230 (Gambia); *Shelley, Ibis*, 1894, p. 27 & p. 476 (Lake Shirwa, Nyasa-land).
Larus pœocephalus, *Gurney, Ibis*, 1860, p. 221 (Durban Bay).
Gavia cirrhocephala, *Blasius, J. f. O.* 1865, p. 376 (critical).
Larus polionotus, *Pelz. Orn. Bras.* p. 461 (1871: *ex Natt. MS.*; "Coast and rivers up to Matto Grosso").
Cirrhocephalus poiocephalus, *Gurney, in Anderss. B. Damara L.* p. 358 (1872).

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* Adult, believed to be the type, in Cambridge Museum examined.

Larus cirrhocephalus, *Milne-Edwards & Grandidier, H. N. Madag., Ois.* p. 643 (1882: inland Lakes to centre of Madagascar).
Larus poliocephalus, *Holub & Pelz. Beitr. Orn. Südafr.* p. 332 (1882).
? Larus hartlaubi, *Rochebrune, Faun. Sénég., Ois.* p. 334 (1884: Gambia).

Adult male in breeding-plumage. Head, nape, and throat lavender-grey, palest on the forehead and gradually darkening until the tint becomes plumbeous at the junction with the pure white neck; eyelids white; mantle pearl-grey, wing-coverts and secondaries darker; the two outer primaries black, with white subterminal mirrors; 3rd quill black, with a smaller white mirror and some white high up on the outer web; 4th and 5th with a considerable increase of white down the outer webs, the shafts, and the adjacent portions of the inner webs; 6th quill grey—passing into white on the outer web to within 1 in. of the black subterminal bar, the extreme tip white; 7th lead-grey, with a black subterminal bar and edge to the inner web, and a whitish tip; remaining inner quills plumbeous, with indications of a darker subterminal bar; tail and under surface white; under wing and axillaries lead-grey: bill, tarsi, and toes crimson or lake-red; iris yellowish white (in recent examples). Total length 16 inches, culmen 1·8, wing 12·5, tail 5·25, tarsus 2·1, middle toe with claw 1·9 to 2. In less mature birds (the majority) there is no mirror on the 3rd and less white on any of the quills. The dimensions of the *female* are a trifle less.

Adult in winter. Like the above, except that the head is white for a short time.

Young. Head white, with dark auricular patches; mantle grey, faintly mottled with brownish; feathers of the upper wing-coverts and the long inner secondaries with clove-brown centres; the remaining secondaries chiefly ash-brown; the primaries much as in the adult, except that there are no white mirrors on the two outermost; tail white, with a narrow umber-brown subterminal band; under surface white: bill yellowish, blackish at the tip; tarsi and toes deep brown.

Immature. Similar, but with less brown on the upper surface, and a commencement of the white mirror on the shaft of the outermost primary. By September (which corresponds to our March) the full grey head has been assumed, and there is a red tinge on the bill and feet.

Hab. Brazil, from a little north of Rio de Janeiro, southwards to the La Plata and the Province of Buenos Ayres, but hardly below Bahia Blanca; up the Paraná valley to Matto Grosso, probably crossing by that way to the coast of Peru, where the bird is found occasionally. In Africa, from Senegambia down to Walvisch Bay on the West side; inland on Lakes Ngami, Victoria Nyanza, Tanganyika, and Shirwa; on the East coast, at Durban.

At one time I thought that the American and the African forms might be distinguished, but the examination of a larger series of specimens has altered that opinion. The distance between West Africa and Brazil is inconsiderable, and there are reasons (which need not be given here) for believing that the species crossed

from the former in comparatively recent times. It is rather the distribution of the species in South America and its route across the Andes which requires explanation.

a–c. ♂ ♀ ad. et juv. sk.	Buenos Ayres, April (*Burmeister*).	H. Saunders Coll.
d. ♂ ad.*	Buenos Ayres, Nov. (*Burmeister*).	H. Saunders Coll.
e–l. ♂ ♀ ad., imm., et juv. sk.	Ajó, Buenos Ayres, Aug., Sept., & Nov. (*Ernest Gibson*).	H. Saunders Coll.
m, n. ♂ ♀ ad. sk.	Belgrano, Buenos Ayres, April.	H. Durnford [C.].
o. ♂ ad. sk.	Belgrano, Buenos Ayres, March (*H. D.*).	Salvin-Godman Coll.
p. Ad. sk.	Callao Bay, Peru, Dec. (*R. Jump*).	H. Saunders Coll.
q, r. ♂ ♀ ad. sk.	Payta, Peru, Jan. (*Admi. A. H. Markham*).	H. Saunders Coll.
s. Ad. sk.	Payta, Peru, July (*Commr. MacFarlane*).	H. Saunders Coll.
t. Ad. st.	West Africa.	Zoological Society [P.].
u. Ad. st.	Gambia.	Mr. Rendall [C.].
v. Ad. sk.	Gambia (*Sir A. Molony*).	Shelley Coll.
w. Ad. sk.	Gold Coast.	R. B. Sharpe, Esq. [P.].
x. ♂ ad. sk.	Walvisch Bay (*C. J. Andersson*).	H. Saunders Coll.
y. ♂ ad. sk.	Durban Bay, Dec. (*Gordge*).	H. Saunders Coll.
z, a', b'. ♂ ♀ ad. et imm. sk.	Durban Bay, (*Gordge*).	Shelley Coll.
f', d'. Ad. sk.	Zambesi (*Bradshaw*).	Tweeddale Coll.
c'. Ad. sk.	Lake Ngami (*Chapman*).	H. Saunders Coll.
e'–i'. Ad. sk.	Lake Shirwa, Nyassaland, 1st June, 1893.	H. H. Johnston, Esq., C.B. [P.].
k'. Ad. sk.	Ujiji, Lake Tanganyika.	H. Saunders Coll.

10. Larus maculipennis.

Gabiota cenicienta (partim), *Azara, Apunt.* iii. pp. 350, 352, lin. 1 (1802: Paraguay).

Gabiota blanca, *Azara, Apunt.* iii. p. 363 (1802: Paraguay).

Larus maculipennis, *Licht. Verz. Doubl.* p. 83 (1823: Monte Video†); *Scl. & Salv. Nomencl. Av. Neotrop.* p. 148 (1873); *Durnford, Ibis,* 1878, p. 43 (Chupat Valley, Patagonia); *id. t. c.* p. 202 (prov. B. Ayres); *id. op. cit.* 1878, p. 405 (Central Patagonia, breeds); *Saunders, P. Z. S.* 1878, p. 201 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 399 (1878: distribution); *Gibson, Ibis,* 1880, p. 163; *White, P. Z. S.* 1882, p. 628 (Buenos Ayres); *Withington, Ibis,* 1888, p. 472 (Buenos Ayres); *Scl. & Huds. Argent. Orn.* ii. p. 198 (1889); *Saunders, P. Z. S.* 1891, p. 373 (eggs); *Oustalet, Miss. Sc. Cap Horn,* vi. (1891) p. 308; *Holland, Ibis,* 1892, p. 213; *Aplin, Ibis,* 1894, p. 211 (Monte Video).

Xema (Chroicocephalus) cirrhocephalum, *Darwin* (*nec Peale*), *Zool.*

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* Head and wing only; the *wing pattern* is the *most mature* known.

† Type in Berlin Museum examined.

Beagle, ii. *Birds*, p. 142 (1841 : partim ; as regards La Plata and Patagonia).

Xema cirrhocephala, *Gray* (*nec Vieill.*), *List B. Brit. Mus.*, Anseres, p. 173 (1844 : partim ; as regards E. Patagonia).

Larus cirrhocephalus (*nec Vieill.*), *Hartl. Ind. Azara*, p. 26 (1847 : partim) ; *Schl. Mus. P.-Bas*, Lari, p. 36 (1863 : partim) ; *Scl. & Salv. P. Z. S.* 1868, p. 146 (partim) ; *Hudson*, *P. Z. S.* 1870 ; p. 802 ; *id. op. cit.* 1871, p. 4 (Buenos Ayres) ; *Scl. & Salv. t. c.* p. 578 (revision Neotrop.) ; *Sharpe*, *P. Z. S.* 1881, p. 16 (Talcahuano, Chile).

Chroicocephalus maculipennis, *Bruch*, *J. f. O.* 1853, p. 105 ; *Licht. Nomencl. Av.* p. 98 (1854 : S. Brazil).

Larus serranus (*nec Tschudi*), *Burm. Reise La Plata-St.* ii. p. 519 (1861 : Entre Rios, Mendoza).

Gavia maculipennis, *Blasius*, *J. f. O.* 1865, p. 374.

Larus glaucodes, *Saunders*, *P. Z. S.* 1874, p. 294 (partim : as regards Argentina).

Adult male in breeding-plumage. Head coffee-brown, darkening on the nape and throat ; eyelids and a patch behind the eye white ;

Larus maculipennis, ad.

neck, tail, and under surface white, with a roseate tinge on the breast and abdomen : mantle and wing-coverts french-grey ; secondaries paler towards their tips, but without any conspicuous white edge ; outermost primary white for the lower 3 inches, and black above on both sides of the white shaft ; 2nd quill with a white outer web and a black subterminal bar on both webs (or only on

the inner web in very old birds), and with the black of the upper part of the inner web clear of the shaft; 3rd quill similar, but with more subterminal black (*see cut* on p. 201); 4th quill similar, but with grey next the shaft on the inner web and its margin black; 5th quill grey on both webs, and a subterminal bar which is sometimes incomplete; remaining quills grey; under wing-coverts grey, in strong contrast with the black of the quills: "bill crimson" (*Gibson*); tarsi and toes dull red; "iris dark brown, pupil black" (*Gibson*). In less mature examples there is more or less of a bar (or only a spot) on the outermost quill, a short streak of black on the outer web of the 2nd quill, and more black on the inner webs generally. Total length 15 inches, culmen 1·7, wing 12, tail 5, tarsus 2, middle toe with claw 1·65 to 1·7.

The *female* appears to be a trifle smaller.

Adult in winter. Devoid of hood, but only for a short time, and without the rosy tint on the underparts: otherwise like the above.

1 2 3

Larus maculipennis, juv.

Young. Head white, with some greyish brown on the occiput and auriculars; mantle and wing-coverts grey, mottled with brown; secondaries with ash-brown centres; the five outer quills chiefly sooty brown terminally and on their inner webs, with indications of incipient mirrors on the two outer quills; the inner quills with some white basally, and, although with a larger proportion of black, yet generally similar to the pattern in the adult; tail with a sooty terminal band. In rather older birds there are elongated mirrors on the three outer quills (*see cut*). Bill dull red, blackish

towards the tip (drying yellowish horn-colour); tarsi and toes dull red.

Immature. Like the above, but with unmottled grey mantle and wing-coverts, and an increasing proportion of white in the primaries.

The *Nestling* and the *Fledgling* are probably like those of *L. glaucodes*, the next species.

Inasmuch as the young of this species has frequently been confused with that of *L. cirrhocephalus*, it may be pointed out that an unfailing distinction is to be found in the colour of the under wing-coverts. These are pale grey in *L. maculipennis* and lead-colour in *L. cirrhocephalus*, which is also a larger bird.

Hab. East side of South America, from Barra Grande, Alagoa, in about 9° S. lat., to at least as far south as Chuput, in East Patagonia; thence westward across the Andes (which are low there) to Arauco and Talcahuano on the Pacific coast.

a. ♂ ad. sk.	Barra Grande, Alagoa, N. Brazil, Sept. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
b–f. Ad.; *g, h.* Juv. sk.	Rio de Janeiro, May 30, July 21 (*J. Young*).	H. Saunders Coll.
i. ♂ ad. sk.	Pelotas, Rio Grande do Sul (*Joyner*)	Salvin-Godman Coll.
k, l. ♂ ♀ ad. sk.	Monte Video, July 30(*J. Young*).	H. Saunders Coll.
m–o. ♀ ad. sk.	Buenos Ayres, July and April (*Burmeister*).	H. Saunders Coll.
p–v. ♂ ad., vix ad., imm., et juv. sk.	Partido del Ajó, Buenos Ayres, May, July, and August (*E. Gibson*).	H. Saunders Coll.
w, x. ♂ ad. sk.	Lomas de Zamora, Buenos Ayres, May 30 (*F. Withington*).	P. L. Sclater Coll.
y, z. ♂ ad.; *a′–c′.* ♀ imm. et juv. sk.	Buenos Ayres, Aug.	Salvin-Godman Coll.
d′–f′. ♂ ad. sk.	Buenos Ayres, April and Aug.	H. Durnford, Esq. [C.].
g′. Juv. sk.	Espartillar, Buenos Ayres, Sept.	H. Durnford, Esq. [C.].
h′. Ad. st.	Bahia Blanca.	Chas. Darwin, Esq. [P.].
i′. Ad. sk.	Chuput, Patagonia, Sept.	H. Durnford, Esq. [C.].
k′. Ad. sk.; *l′.* Ad. st.	East Patagonia [very old].	Sir W. Burnett and Capt. Fitzroy [P.].
m′. ♀ imm. sk.	Arauco, S. Chile, Aug.	H. Berkeley James, Esq. [P.].
n′. ♂ ad.; *o′.* ♂ juv. sk.	Talcahuano, S. Chile, Sept. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
p′. Imm. sk.	Viña del Mar, Valparaiso.	H. Berkeley James, Esq. [P.].

11. Larus glaucodes.

Larus glaucodes, *Meyen, Nov. Act. Acad. Cæs. Leop.* xvi. p. 115, pl. xxiv. (1834); *id. Beitr. Zool.* p. 239, pl. xxxiv. (1834: Chile); *Cassin, U.S. Astronom. Exp.* ii. *Birds*, p. 204 (1855: Chile);

Gray, Hand-l. B. iii. p. 114, no. 10986 (1871); *Scl. & Salv. P. Z. S.* 1871, p. 578; *id. Nom. Av. Neotrop.* p. 148 (1873); *Saunders, P. Z. S.* 1877, p. 799 (Magellan Str.); *id. op. cit.* 1878, p. 203 (revision Larinæ); *id. Voy.* '*Challenger*,' ii. *Birds*, p. 138 (1880); *Sharpe, P. Z. S.* 1881, p. 16 (Cape Gregory); *Ridgw. Pr. U.S. Nat. Mus.* xii. p. 139 (1890: Port Otway); *Oustalet, Miss. Sc. Cap Horn*, vi. (1891) p. 181.

Larus ridibundus, *P. P. King, Zool. Journ.* iv. p. 104 (1828–29); *id. Voy. Adv. & Beagle*, i. p. 541 (1839: Magellan Strs.).

Xema cirrhocephalum, *Gould, Zool. Beagle*, iii. p. 142 (1841, *nec Vieill.*); *Fraser, P. Z. S.* 1843, p. 119 (S. Chile).

Xema cirrhocephala, *Gray* (*nec Vieill.*), *List B. Brit. Mus.*, Anseres, p. 173 (1844: partim).

Xema glaucodes, *Boie, Isis*, 1844, p. 192?

Larus albipennis, *Gray, List B. Brit. Mus.*, Anseres, p. 173 (1844: *ex Licht. MS.* *); *Peale, Zool. U.S. Expl. Exped.* p. 288 (1848: Chile); *Cassin, Orn. U.S. Expl. Exped.* p. 379 (1858: Chile).

Chroicocephalus glaucotes, *Bruch, J. f. O.* 1853, p. 105; *id. op. cit.* 1855, p. 291; *Licht. Nomencl. Av.* p. 98 (1854: Chile).

Gavia glaucotes, *Bp. C. R.* xlii. p. 771, no. 71 (1856).

Gavia roseiventris, *Gould, P. Z. S.* 1859, p. 97 (Falkland Islands).

Larus roseiventris, *Sclater, P. Z. S.* 1860, p. 391; *Abbott, Ibis*, 1861, p. 166 (Falkland Islands).

Larus glaucotes, *Cabanis, Ibis*, 1861, p. 312.

Larus glaucotis, *Schl. Mus. P.-Bas.* Lari, p. 42 (1863).

Gavia glaucotis, *Blasius, J. f. O.* 1865, p. 374.

Larus cirrhocephalus, *Pelz.* (*nec Vieill.*) *Reis. Novara, Vög.* p. 151 (1865: Chile, breeds).

Larus cirrhocephalus (partim), *Sharpe, P. Z. S.* 1881, p. 16 (Talcahuano, Chile).

Chroeocephalus glaucodes, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890).

Adult in breeding-plumage. Very like the preceding species, from which it differs in having less black and *no bar* whatever on any of the primaries: these having little more than black borders on the inner webs (*see cut* on p. 205); the underparts much more suffused with a beautiful pink. It is also rather smaller. Total length 14 inches, culmen 1·7, wing 11, tail 4·8, tarsus 1·75, middle toe with claw 1·65.

Adult in winter. Similar.

Nestling. Cinnamon-buff, mottled with brownish black on the upper surface: bill, tarsi, and toes yellowish brown.

Fledgling. Chiefly pale umber-brown above and paler below; the grey of the mantle and wings showing through the brown half-down.

Young (about two months old). Head and mantle chiefly cinnamon-buff; the tail white, with a narrow brown terminal band; secondaries grey with dark centres; shafts of principal primaries *white throughout*; outer quills with very extensive white centres and practically little more than black borders and subterminal bars (*see cut* on p. 205); the succeeding primaries similar, but gradually acquiring a grey ground-colour, while the intensity of the black

* Type in Berlin Museum examined.

Larus glaucodes, ad.

Larus glaucodes, juv.

diminishes; the under surface white; under wing-coverts pearl-grey, almost white on the edge.

Immature. Similar, with a gradual diminution of the brown markings and a corresponding increase of white in the primaries.

It must be admitted that there is often considerable difficulty in distinguishing between the young of this species and of *L. maculipennis*. The easiest test is the larger proportion of white in the former, especially on the 3rd quill, in which the black of the inner web is quite detached from the shaft; whereas in young *L. maculipennis* the black reaches the shaft till the bird is a year older. As already stated, the latter species is a trifle the larger.

Hab. Southern Patagonia, Tierra del Fuego, the Falkland Islands, the Straits of Magellan, and along the coast of Chile up to Coquimbo.

a–c. Ad. et ♀ vix ad. sk.	Egg Harbour, S.E. Patagonia, 45° S., 65° W., Aug. (*J. Young*).	H. Saunders Coll.
d, e. Ad. sk.	Falkland Islands (*Leconte*).	Salvin-Godman Coll.
f. Ad. hiem. sk.	Falkland Islands (*Abbott*).	J. Gould [P.]. (? Type of *L. roseiventris*, Gould.)
g. ♂ ad. hiem. sk.	Falkland Islands (*Antarctic Expedition*).	The Admiralty [P.].
h. Ad. st.	Salvador Bay, East Falkland (*Antarctic Expedition*).	The Admiralty [P.].
i. Ad. hiem. sk.	Berkeley Sound, East Falkland (*Antarctic Expedition*).	The Admiralty [P.].
k. Ad. sk.	Berkeley Sound, East Falkland, Sept. 6, 1842.	McCormick Bequest.
l. Ad. sk.	Uranie Bay, East Falkland, Nov. 21, 1842.	McCormick Bequest.
m–o. Ad. sk.	East Falkland Island (*Dr. M. Rogers*).	H. Saunders Coll.
p. Ad. sk.	East Falkland Island (*F. Coleman*).	H. Saunders Coll.
q–w. Pull. sk.	East Falkland Island (*Dr. Walter Dale*).	H. Saunders Coll.
x, y. Juv. sk.	East Falkland Island (1–2 months old) (*Dr. W. D.*).	H. Saunders Coll.
z, a'. Juv. sk.	East Falkland Island (10 months), May 23 (*Dr. W. D.*).	H. Saunders Coll.
b', c'. Ad. hiem. et juv. sk.	Straits of Magellan.	Sir W. Burnett & Capt. Fitzroy, R.N. [P.].
d'. Juv. st.; *e'.* Juv. sk.	Straits of Magellan, Jan. 4, 1837.	Chas. Darwin, Esq. [P.].
f'. Ad. sk.	Cape Horn.	Capt. Kellett & Lieut. Wood, R.N.
g'. ♂ ad. sk.	Cape Gregory, Strs. Magellan, Jan. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
h'. ♂ imm. sk.	Messier Channel, Magellan Territory, Jan. 4, 1876.	Voy. H.M.S. 'Challenger.'
i'. ♂ ad. sk.	Talcahuano, Chile, Sept. 8, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
k'. Ad. st.	Chile (*Brydges*).	Purchased.
l'. Imm. sk.	Chile (*E. C. Reed*).	Salvin-Godman Coll.

m'. Ad. hiem.; *n'*. ♂ juv. sk.	Colchagua, Chile, July (*E. C. Reed*).	H. Saunders Coll.
o'. ♂ ad. hiem. sk.	Algarroba, Chile, July.	H. Saunders Coll.
p'. ♂ ad. sk.	Santiago, Chile (*Weisshaupt*).	Salvin-Godman Coll.
q'. Ad. st.	Valparaiso.	Sir W. Burnett and Capt. Fitzroy, R.N. [P.].
r'. ♂ ad. sk.	Valparaiso, July (*Adml. A. H. Markham*).	H. Saunders Coll.
s', *t'*. Ad. et juv. sk.	Viña del Mar, Valparaiso.	H. Berkeley James, Esq. [P.].
u', *v'*. ♂ ad. et imm. sk.	Coquimbo, May–June (*Adml. A. H. Markham*).	H. Saunders Coll.
w'. Skeleton.	Talcahuano, Sept. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'

12. Larus ridibundus.

The Brown-headed Gull, *Albin, Nat. Hist. B.* ii. p. 79, pl. 85 (1740: adult).

La petite Mouette grise, *Briss. Orn.* vi. p. 173 (1760: ad. hiem.).

La Mouette cendrée, *Briss. Orn.* vi. p. 175, pl. xvi. fig. 1 (1760).

La petite Mouette cendrée, *Briss. Orn.* vi. p. 178, pl. xvii. fig. 1 (1760).

La Mouette rieuse à pattes rouges, *Briss. Orn.* vi. p. 196 (1760).

? Larus cinerarius, *Linn. Syst. Nat.* i. p. 224 (1766); *Gm. S. N.* i. p. 597 (1788).

Larus ridibundus, *Linn. Syst. Nat.* i. p. 225 (1766); *Gm. S. N.* i. p. 601 (1788); *Retzius, F. Suec.* p. 159 (1790); *Lath. Ind. Orn.* ii. p. 811 (1790); *Bechst. Naturg. Deutschl.* ii. p. 819 (1791); *Wolf, Taschenb.* ii. p. 482 (1810); *Meyer u. Bechst. u. Leisl. Nachtr. Deutschl.* p. 6 (1812); *Meisner & Schinz, Vög. Schweiz*, p. 272 (1815); *Meyer, Vög. Liv- u. Esthl.* p. 234 (1815); *Temm. Man. d'Orn.* p. 504 (1815); *Koch, Syst. Baier. Zool.* p. 377 (1816); *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 40 (1816); *Nilss. Orn. Suec.* ii. p. 176 (1817); *Temm. Man. d'Orn.* 2e éd. p. 780 (1820); *Brehm, Beitr. Vogelk.* iii. p. 825 (1822); *id. Lehrb.* p. 723 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. i. p. 201, pl. 22 (1826); *Werner, Atlas, Palmipèdes*, pl. 28 (1828); *Vieill. Faune Franç., Ois.* p. 391 (1828?); *Fleming, Brit. An.* p. 141 (1828); *Savi, Orn. Tosc.* iii. p. 62 (1831); *Selby, Brit. B.* ii. p. 486, pl. xcii. (1833); *Nordm. in Erman's Verz. Th. u. Pfl.* p. 18 (1835: Okhotsk Sea); *Jenyns, Man. Brit. Vertebr.* p. 272 (1835); *Dickson & Ross, P. Z. S.* 1839, p. 135 (Erzeroum: breeding); *Naum. Vög. Deutschl.* x. p. 264, pl. 260 (1840); *Crespon, Orn. Gard*, p. 490 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcv & p. 242 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 281 (1840); *Selys-Longch. Faun. Belg.* p. 152 (1842); *Mühle, Orn. Griechenl.* p. 140 (1844); *Schl. Rev. Crit.* p. cxxvi (1844); *Crespon, Faune Mérid.* ii. p. 127 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 549 (1845); *Hewits. Eggs Brit. B.* ii. p. 437, pl. cxiii. (1846); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Ois. Eur.* ii. p. 325 (1849); *Blyth, Cat. B. Mus. As. Soc.* p. 289 (1849); *Thomps. B. Irel.* iii. p. 322 (1851); *Middend. Reis. Sibir., Zool.* p. 244 (1851); *Brandt, Lehmann's Reis. n. Buchara*, p. 331 (1852: Bokhara lakes); *Kjærb. Danm. Fugle*, p. 335, tab. xli. (1852), and *Suppl.* tab. xxii.; *Schl. Vog. Nederl.* p. 602, pls. 352, 353 (1854); *Bailly, Orn. Savoie*, iv. p. 319 (1854); *Meyer, Brit. B.* vii.

p. 126, pl. 302 (1857); *Kittl. Denkw.* ii. p. 200 (1858: Kamschatka); *Schrenck, Reis. Amurl.* i. p. 510 (1859); *Linderm. Vög. Griechenl.* p. 174 (1860); *Irby, Ibis*, 1861, p. 246 (Oude & Kumaon); *Sundev. Sv. Fogl.* pl. 49. fig. 2 (1863); *Schl. Mus. P.-Bas*, Lari, p. 37 (1863); *Radde, Reis. Sibir., Vög.* p. 387 (1863); *Gray, Cat. Brit. B.* p. 234 (1863); *Wright, Ibis*, 1864, p. 152 (Malta); *V. Martens, J. f. O.* 1866, p. 30 (Manila); *Harting, B. Middlesex*, p. 254 (1866); *Degl. & Gerbe, Orn. Eur.* ii. p. 435 (1867); *Borggr. Vogelf. Norddeutschl.* p. 142 (1869); *Doderl. Avif. Sicil.* p. 237 (1869); *R. Gray, B. West Scotl.* p. 476 (1871); *G. R. Gray, Hand-l. B.* iii. p. 114, no. 10981 (1871); *Gurney, jr., Ibis*, 1871, p. 300 (Algiers); *Harting, Handb. Brit. B.* p. 77 (1872); *Shelley, B. Egypt*, p. 309 (1872); *Hume, Str. F.* i. p. 278 (1873); *Adam, op. cit.* p. 403 (1873: Sambhur Lake); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1404 (1873); *Palmén, Finlands Fogl.* p. 612 (1873); *Brooke, Ibis*, 1873, p. 347 (Sardinia, resident); *Irby, Orn. Strs. Gibr.* p. 213 (1875); *Dresser, Ibis*, 1876, p. 415 (Turkestan up to 4000 ft.); *Blanf. East. Pers.* ii. p. 292 (1876); *Marchand, Rev. Zool.* (3) v. p. 354, pl. 84, pullus (1877); *Rowley, Orn. Misc.* ii. p. 407 (1877: Scoulton Mere); *Saunders, P. Z. S.* 1877, p. 798 (Manila, &c.); *Collett, Nyt Mag. Naturv.* p. 208 (1877: Norway); *Newcklowsky, Mitth. orn. Ver. Wien*, 1877, p. 5 (habits); *Dresser, B. Eur.* viii. p. 357, pl. 596, & pl. 597. fig. 1 (1878); *Prjev. in Rowley's Orn. Misc.* iii. p. 110 (1878: Ussuria); *E. C. Taylor, Ibis*, 1878, p. 373 (Nile Valley, April); *Saunders, P. Z. S* 1878, p. 200 (revision Larinæ); *Finsch, Verh. zool.-bot. Ges. Wien*, p. 274 (1879); *Hume, Str. F.* viii. p. 115 (1879: List); *Vidal, op. cit.* ix. p. 94 (1880: Malabar coast); *Butler, t. c.* p. 493 (Deccan); *Rodd, B. Cornwall*, p. 169 (1880); *H. C. St. John, Wild Coasts Nipon*, p. 392 (1880); *Wardlaw Ramsay, Tweedd. Mem.* p. 660 (1881: Luzon); *Saunders, Rep. 'Challenger,'* ii. *Birds*, p. 138 (1881: Manila & Yokohama); *Scully, Ibis*, 1881, p. 594 (Gilgit, on migration); *Salvin, Cat. Strickl. Coll.* p. 621 (1882); *C. Swinhoe, Ibis*, 1882, p. 126 (Kandahar); *Seebohm, t. c.* p. 230 (Caspian & Kirghiz steppes, breeds); *id. t. c.* p. 385 (Archangel, summer, rare); *Oates, B. Brit. Burm.* ii. p. 418 (1883); *Seebohm, Ibis*, 1884, p. 272 (Kiu Kiang); *Saunders, t. c.* p. 390 (S.W. France); *Tristram, Faun. & Flor. Palest.* p. 136 (1884); *Rochebr. Faun. Sénég., Ois.* p. 334 (1884: Cape Blanco); *Salvad. Ann. Mus. Civ. Genov.* (2) i. p. 251 (1884: Scioa); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 594 (1884); *Whitehead, Ibis*, 1885, p. 47 (Corsica); *Seebohm, Brit. B.* iii. p. 310 (1885); *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 129 (1885: St. Petersburg); *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 76 (1885: Kamschatka); *Dubois, Bull. Mus. Belg.* iv. p. 22 (1886: Belgium); *Alléon, Ornis*, 1886, p. 423 (Dobrudsha); *Sharpe, Ibis*, 1886, p. 168 (Muscat); *H-Brown & Buckley, Faun. Sutherl. &c.* p. 830 (1887); *Booth, Rough Notes*, iii. (1887); *Tait, Ibis*, 1887, p. 394 (Portugal); *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 123 (Bering I.); *Vian, Bull. Soc. Zool. France*, 1887, p. 390 (nestling); *Gigl. & Salvad. P. Z. S.* 1887, p. 592 (Corea); *Scully, Journ. As. Soc. Beng.* vi. p. 88 (1887: N. Afghanistan); *Hume, Str. F.* xi. p. 349 (1888: Manipur); *H-Br. & Buckl. Faun. Outer Hebr.* p. 144 (1888); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 57 (1888: Turkestan); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 63 (1889); *Saunders, Man. Brit. B.* p. 649 (1889); *Sharpe, Tr. Linn. Soc.* (2) v. pt. 3, p. 92 (1889: Afghanistan); *O. St. John, Ibis*, 1889, p. 180 (S. Afghanistan);

Salvad. & Gigl. Mem. Accad. Tor. xxxix. p. 119 (1889: Vladivostok); *Lilford, Ibis*, 1889, p. 348 (Cyprus); *Stevens. & Southw. B. Norfolk*, iii. p. 322 (1890); *Seebohm, B. Japan. Emp.* p. 295 (1890); *Buckley & H-Brown, Faun. Orkney Is.* p. 230 (1891); *Styan, Ibis*, 1891, p. 508 (Lower Yangtse); *Saunders, t. c.* p. 187 (Lake Léman); *Gätke, Vogelw. Helgol.* p. 577 (1891); *Jäckel & Blas. Vög. Bayerns*, p. 357 (1891); *Sharpe, 2nd Yark. Miss., Birds*, p. 134 (1891); *Mitchell, B. Lancs.* ed. 2, p. 252 (1892); *Hartl. Abh. nat. Ver. Brem.* xii. IIft. ii. p. 334 (1892: Tientsin); *P. Rendall, Ibis*, 1892, p. 230 (Gambia) [?]; *De La Touche, t. c.* p. 502 (Foochow & Swatow); *Macphers. Faun. Lakeland*, p. 421 (1892); *Mathew, B. Devon*, p. 382 (1892); *Lilford, Col. Fig. Brit. B.* pt. xxi. (1892); *H-Br. & Buckl. Faun. Argyll &c.* p. 189 (1892); *Hartert, Ibis*, 1892, p. 520 (East Prussia); *Barnes, Ibis*, 1893, p. 176 (Aden, winter); *Lilford, B. Northants*, p. 399 (1893); *Ussher, Pr. R. Irish Acad.* (3) iii. p. 410 (1894); *Oustal. N. Arch. Mus. Paris*, (3) vi. p. 94 (1894: Korla); *Collett, Nyt Mag. f. Naturv.* Bd. xxxv. p. 304 (1894: Norway); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 297 (1895).

The Pewit Gull, *Pennant, Brit. Zool.* p. 143, pl. L 5 (1766); *ibid.* 2nd ed. p. 426 (1788).

La Petite Mouette cendrée, *Buff. Hist. Nat. Ois.* viii. p. 430 (1783: winter).

La Mouette rieuse, *Buff. Hist. Nat. Ois.* viii. p. 433 (1783: ad.); *Daubent. Pl. Enl.* pl. 970 (1786).

Black-headed Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 380 (1785); *id. Gen. Syn. Suppl.* i. p. 268 (1787); *Bewick, Brit. B.* ii. p. 203 (1821); *Yarr. Brit. B.* iii. p. 433 (1843).

Red-legged Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 386 (1785).

Brown-headed Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 383 (1785).

Laughing Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 383 (1785: partim).

Le Petit Goiland, *Daubent. Pl. Enl.* pl. 969 (1786).

Larus erythropus, *Gm. S. N.* i. p. 597 (1788).

Larus cinerarius, *Schäff. Mus. Orn.* p. 63 (1789); *Pall. Zoogr. Rosso-Asiat.* ii. p. 326 (1811).

Larus atricilla (*nec Linn.*), *Retzius, Faun. Suec.* p. 160 (1790); *Pall. Zoogr. Rosso-Asiat.* ii. p. 324 (1811).

Brown Gull, *Lath. Gen. Syn. Suppl.* ii. p. 331 (1801: winter pl.).

Larus canescens, *Bechst. Orn. Taschenb.* ii. p. 370 (1803).

Larus nævius, *Pall. Zoogr. Rosso-Asiat.* ii. p. 327 (1811).

Larus capistratus, *Temm. Man. d'Orn.* ed. 2, ii. p. 785 (1820); *Meyer, Taschenb.* iii. p. 204 (1822); *Brehm, Beitr. Vogelk.* iii. p. 839 (1822); *id. Lehrb.* p. 725 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 204 (1826); *Fleming, Brit. Anim.* p. 142 (1828); *Savi, Orn. Tosc.* iii. p. 72 (1831); *Jenyns, Man. Brit. Vertebr.* p. 272 (1835); *Temm. Man. d'Orn.* 2e éd. 4e pte. p. 485 (1840); *Selys-Longch. Faune Belge*, p. 152 (1842); *Yarr. Brit. B.* ed. 2, iii. p. 547 (1845); *Schl. Vog. Nederl.* p. 604, pl. 354 (1854); *Meyer, Brit. B.* vii. p. 123, pl. 301 (1857); *Heugl. Syst. Uebers.* p. 69 (1856: Lower Egypt); *Gray, Cat. Brit. B.* p. 235 (1863); *id. Hand-l. B.* iii. p. 114, no. 10982 (1871).

Xema ridibundus, *Boie, Isis*, 1822, p. 563; *Gould, B. Eur.* v. pl. 425 (1837).

Xema capistratus, *Boie, Isis*, 1822, p. 563; *id. op. cit.* 1844, p. 192.

Gavia ridibunda, *Kaup, Natürl. Syst.* p. 98 & p. 196 (1829); *Macgill. Man. Brit. B.* pt. ii. p. 240 (1842); *id. Brit. B.* v. p. 593 (1852); *Reichenb. Av. Syst. Nat., Longip.* p. v (1852); *Bp. C. R.* xlii. p. 771

(1856); *Bettoni, Ucc. Nidif. Lomb.* ii. pl. 98 (1868); *Severtz. Turkest. Jevotn.* p. 70 (1873); *Olphe-Gall. Orn. Eur. Occident.* fasc. x. p. 97 (1886).

Gavia capistrata, *Kaup, Natürl. Syst.* p. 98 & p. 196 (1829); *Macgill. Brit. B.* v. p. 605 (1852); *Bp. C. R.* xlii. p. 771 (1856); *Loche, Expl. Sci. Algér., Ois.* ii. p. 193 (1867).

Xema ridibundum, *Brehm, Isis*, 1830, p. 994; *id. Vög. Deutschl.* p. 760 (1831); *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *id. Icon. Faun. Ital., Ucc.* i. tav. 45. f. *a* (1840: cf. *Salvad. Ibis*, 1888, p. 323); *id. Cat. Ucc. Eur.* p. 78 (1842); *Rüpp. Syst. Uebers.* p. 139 (1845: Alexandria); *Jaub. et B.-Lapomm. Rich. Orn. Midi Fr.* p. 396 (1859); *L. Adams, Ibis*, 1864, p. 36 (Lower Egypt); *Fritsch, Vög. Eur.* p. 467, tab. 57 (1870); *Homeyer, Ornis*, 1885, p. 81; *Lütken, t. c.* p. 146 (Denmark); *D. Torre & Tsch. t. c.* p. 562 (Austria-Hungary); *Albarda, t. c.* p. 630 (Holland); *B. Schneider, op. cit.* 1887, p. 551 (Upper Alsace); *Hartert, MT. orn. Ver. Wien*, 1887, p. 178 (E. Prussia, breeds); *Riesenthal, Wasservög. Mitteleur.* p. 138 (1889); *Keller, Orn. Carinthiæ*, p. 304 (1890); *Fatio & Studer, Cat. Ois. Suisse*, pp. 62, 63 (1892).

Xema pileatum, *Brehm, Isis*, 1830, p. 994; *id. Vög. Deutschl.* p. 761 (1831).

Xema capistratum, *Brehm, Isis*, 1830, p. 994; *id. Vög. Deutschl.* p. 762 (1831); *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *id. Icon. Faun. Ital., Ucc.* i. tav. 46. fig. 1 (1840: cf. *Salvad. Ibis*, 1888, p. 323); *id. Cat. Ucc. Eur.* p. 78 (1842); *Fritsch, Vög. Eur.* p. 467, tab. 54. fig. 8 (1870)..

Chroicocephalus ridibundus, *Eyton, Cat. Brit. B.* p. 53 (1836); *Bruch, J. f. O.* 1853, p. 105; *Licht. Nomencl. Av.* p. 98 (1854); *Brehm, Naum.* 1855, p. 294; *Swinh. Ibis*, 1863, p. 428 (Formosa); *Salvad. Ucc. Sard.* p. 125 (1864); *Filippi, Viagg. Pers.* 1865, p. 352; *Taylor, Ibis*, 1867, p. 72 (Nile); *Wyatt, op. cit.* 1870, p. 18 (Tor, Red Sea); *Swinh. P. Z. S.* 1871, p. 421; *Saunders, Ibis*, 1871, p. 399 (S. Spain); *Alston & H.-Br. Ibis*, 1872, p. 52 (Archangel); *Feilden, Zool.* s. s. p. 3287 (1872: Osteroë, Færoes, breeds); *Gould, B. Gt. Brit.* v. pl. 64 (1873); *Swinhoe, Ibis*, 1874, p. 165 (Hakodadi); *David et Oustal. Ois. Chine*, p. 520 (1878); *Gigl. Ibis*, 1881, p. 218 (Italy); *Menzbier, Bull. Soc. Mosc.* lviii. no. 1, p. 136 (1883); *Radde, Orn. Cauc.* p. 482 (1884); *Giglioli, Avif. Ital.* p. 424 (1886); *Taczan. Ornis*, 1888, p. 507 (Poland, the only Gull that breeds); *Radde & Walter, Ornis*, 1889, p. 125 (Transcaspia); *Giglioli*, 1° *Resoc. Av. Ital.* p. 641 (1889); *id.* 2° *Resoc.* p. 648 (1890: breeds, Sardinia); *id.* 3° *Resoc.* p. 509 (1891); *Taczan. Mém. Acad. St. Pétersb.* xxxix. p. 1040 (1893: E. Siberia).

Chroicocephalus capistratus, *Eyton, Hist. Rarer Brit. B.* p. 53 (1836); *Gray, List Gen.* p. 79 (1840); *id.* ed. 1841, p. 99; *Bruch, J. f. O.* 1853, p. 105; *Brehm, Naum.* 1855, p. 294; *Swinh. P. Z. S.* 1863, p. 327 (China); *Tacz. Bull. Soc. Zool. France*, 1876, p. 264 (E. Siberia); *id. op. cit.* 1882, p. 397 (Kamtschatka).

Masked Gull, *Yarr. Brit. B.* iii. p. 430 (1843).

Larus ridibundus minor, *Schl. Rev. Crit.* p. cxvii & p. 113 (1844).

Xema ridibunda, *Gray, List B. Brit. Mus.*, Anseres, p. 172 (1844); *Hodgs. in Gray's Zool. Miscell.* p. 86 (1844); *Gray, List Osteol. Spec. Brit. Mus.* p. 121 (1847: Nipal); *Jerd. B. Ind.* iii. p. 832 (1864); *Hume & Henders. Lahore to Yark.* p. 301 (1873: Kashmir).

Xema capistrata, *Gray, List B. Brit. Mus.*, Anseres, p. 172 (1844).

Xema pallida, *Hodgs. in Gray's Zool. Miscell.* p. 86, no. 857, imm. (1844).

Larus brunneicephalus, *Gray, Cat. Hodgson Coll.* p. 148, nos. 566 & 857 (1846: Nepal); *id. op. cit.* ed. 2, p. 77 (1863, partim) *; *Cassin, U.S. Expl. Exped.* ii. p. 232 (1858: Yedo, Japan); *Severtz. Ibis*, 1883, p. 77 (Pamir Lakes, breeding; *teste Pleske, Mém. Acad. St. Pétersb.* xxxvi. p. 57).
Gavia ridibundus, *Bp. Naum.* 1854, p. 213.
Gavia capistratus, *Bp. Naum.* 1854, p. 213.
Chroicocephalus pileatus, *Brehm, Naum.* 1855, p. 294.
Chroicocephalus minor, *Brehm, Naum.* 1855, p. 294.
Chloirocephalus [*sic*] pileatus, *Brehm, Vogelf.* p. 343 (1855).
Choicocephalus [*sic*] minor, *Brehm, Vogelf.* p. 343 (1855).
Chroicocephalus brunneicephalus, *Swinh.* (*nec Jerdon*) *P. Z. S.* 1863, p. 327 (China).
Gavia rudibunda [*sic*], *Loche, Expl. Sci. Algér., Ois.* ii. p. 192 (1867).
Larus (Chroicocephalus) ridibundus, *Droste, Vogelw. Borkum*, p. 338 (1869).
Chroocephalus ridibundus, *Salvad. Faun. Ital., Ucc.* p. 287 (1871); *Martorelli, Ucc. Sard.* p. 52 (1884).
Larus ridibundus, *β.* capistratus, *Severtz. J. f. O.* 1875, p. 185.
"Larus cahiricus" *and* "Larus cahirinus," *Saunders, P. Z. S.* 1878, p. 201, *ex MS. Hempr. & Ehr., Berlin Mus.* (Syria & Arabia)
Hydrocolæus ridibundus, *Salvad. Ucc. Ital.* p. 283 (1887); *Brusina, Orn. Croatica*, p. 92 (1889).
Chrœocephalus ridibundus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890).
Chrœocephalus capistratus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890: Hartz).

Adult male in breeding-plumage. Very similar, superficially, to the preceding species: hood coffee-brown—but shorter, grey mantle, white tail, and white under surface tinged with (evanescent) roseate; but the pattern of the outer primaries is very different, being chiefly white, with black tips, and black margins to the inner webs. Shafts of the three outer quills white; the outermost quill white, with a narrow black line along the greater part of the outer web (touching the shaft in all except very old birds), a black tip, and a blackish edge to the inner margin; 2nd quill similar, but with merely a short hair-line of black on the outer web; 3rd quill with a trifle more black running upwards from the black tip along the outer web; 4th quill similar, but with a grey centre to the inner web; 5th quill white on both webs, and with a minute white tip: 6th similar, but the tip grey and broader, so that the black becomes a subterminal bar; 7th similar, but with less and fainter black; upper primaries grey; secondaries paler grey, without conspicuous margins: bill, tarsi, and toes lake-red; iris hazel. Total length 15·5 to 16 inches, culmen 1·8, wing 11·75 to 12, tail 5, tarsus 1·7, middle toe and claw 1·55.

The *female* is undoubtedly smaller as a rule, though there are exceptions.

Adult in winter. Similar, but without a hood; merely a little greyish on the occiput, and blackish on the auriculars. In vigorous

* The two specimens above enumerated belong to this species, but an example of true *L. brunneicephalus* was subsequently received from Nepal.

birds the indications of a hood re-appear in autumn, soon after the completion of the moult, which is in August; but cold weather, combined with a scarcity of nutritive food, arrests the development, and it is not usual to see birds with fully complete hoods till February, though there are many exceptions. A female (by dissection) obtained in the shore-nets at Wells, Norfolk, on Nov. 10th, has the underparts, and even the shafts and webs of the primaries, suffused with a beautiful salmon-pink, but this also must be considered unusual.

Nestling. Buffish to brown, darkest on the upper parts, spotted and streaked with umber and black on the back, head, and throat.

Young. Forehead white, rest of the head chiefly greyish brown; upper surface warmer brown, with grey lower wing-coverts; secondaries with blackish centres and white borders; the three outer primaries black on the outer webs and at the tips and margins of the inner webs, but the centres white, except the outermost, in which there is for a time a dark line inside the shaft (*see cut*); in the succeeding primaries the dark colour increases ascendingly on the inner webs, while from the 5th the outer webs are pale grey

Larus ridibundus, juv.

to brownish, with a little white at the tips; tail-feathers white, with a band of blackish brown; under surface dull white: bill dull yellow, passing into black at the angle; tarsi and toes dull reddish yellow. The brown colour is soon lost on the back, which has become grey by December.

Immature. Like the adult, with a few brown markings left on

the upper wing-coverts, and more black on the outer webs of the primaries. More or less of a brown hood is assumed when the bird is barely a year old, and the band on the tail is lost by the following autumn, when the new primaries appear, with—as has been said—a larger proportion of black than in the adult. In fact the duration of the immature phase is very short. The bird does not breed until the following (or second) spring.

Occasionally the black from the margins of the inner webs of the three outer quills runs in and reaches the shafts, much encroaching upon the usual white centres, though not to the same extent on both wings of the same bird. This is noticeable in two examples obtained at Dinapur in December.

Hab. The Færoes, Southern Norway and Sweden, Russia from Archangel southwards, and the rest of Europe to the Mediterranean; eastward, across the temperate portions of Asia to Kamtschatka (breeding). In winter, Gambia (*fide* Rendall), Nubia, the Red Sea, the Persian Gulf, India, the Philippines, China and Japan.

a, *b*. Ad. st.	Hills of Hoy, Orkneys (summer).	Purchased.
c. Juv. sk.	Stromness, Orkneys, Jan. (*J. Dunn*).	H. Saunders Coll.
d. ♂ ad. sk.	Loch Maree, March 18 (*J. H. Dixon*).	H. Saunders Coll.
e. Ad. st.	Beaufort, Beauly, June.	Lord Lovat [P.].
f–*h*. Ad. st.	Beaufort, Beauly (group).	Lord Lovat [P.].
i, *k*. Ad. et juv. sk.	Aboyne.	R. B. Sharpe, Esq. [P.].
l, *m*. ♂ ♀ ad. sk.	Loch Lomond, June (*A. Anderson*).	Seebohm Coll.
n. ♂ ad. sk.	Stirlingshire, March (*J. A. Harvie-Brown*).	Seebohm Coll.
o. Ad. sk.	"Scotland."	Col. Montagu [P.].
p. Juv. st.	Fern Islands, Northumberland.	C. Coningham, Esq. [P.].
q. Ad. sk.	Lincolnshire, March 1 (*E. Bidwell*).	H. Saunders Coll.
r. ♀ ad. sk.	Wells, Norfolk, Nov. 10.	Col. H. W. Feilden [P.].
s, *t*. ♂ ♀ pull. sk.	Hoveton, Norfolk, June (*E. B.*).	Col. H. W. Feilden [P.].
u. Ad. sk.	Walberswick, Feb. (*W. Tyler*).	Seebohm Coll.
v, *w*. Pull. et juv. sk.	Walney Island, Lancashire, May 31, June 8 (*A. von Hügel*).	H. Saunders Coll.
x. Juv. st.	Wales.	Rev. A. Morgan [P.].
y, *z*. ♂ ♀ ad. sk.	St. Bride's, S. Wales.	Hon. W. Edwardes [P.].
a', *b'*. Ad. et juv. sk.	Carmarthen, S. Wales.	Col. Montagu [P.].
c'–*e'*. Ad. et imm. st.	Cornwall.	Vingoe Coll.
f'. Ad. hiem. sk.	Devonshire.	Col. Montagu [P.].
g', *h'*. Ad. et juv. st.	Torquay.	C. Coningham, Esq. [P.].

i', *k'*. ♂ ♀ ad. sk.	Dungeness.	Gould Coll.
l'–*p'*. Ad. et juv. sk.	Romney Marsh, Sept. & Feb.	R. B. Sharpe, Esq. [P.].
q'. Ad. st.	Southend.	Purchased.
r', *s'*. Pull. st.	England (*J. Baker*).	Purchased.
t'. ♀ ad. sk.	Channel Islands, spring.	Purchased.
u'. Juv. sk.	Havre, August (*V. Pluche*).	H. Saunders Coll.
v'. ♂ juv. sk.	Havre, Feb. (*V. P.*).	E. Hargitt, Esq. [P.].
w'. ♀ ad. sk.	Havre, Feb. (*V. P.*).	Seebohm Coll.
x', *y'*. ♂ juv. sk.	Heligoland, Dec.–Jan. (*L. Gätke*).	Seebohm Coll.
z'. Ad. sk.	Cholmogory, Dwina, N. Russia, July (*J. A. Harvie-Brown*).	H. Saunders Coll.
a''. Juv. sk.	Csalokos, Hungary, Aug.	Hungarian Nat. Mus. [P.].
b''. ♀ ad. sk.	Seville, Feb. (*A. Ruiz*).	H. Saunders Coll.
c''. Ad. sk.	Tangier, winter (*Olcese*).	H. Saunders Coll.
d''. ♂ ad.; *e''*. Juv. sk.	Málaga, Dec. (*Rios*).	H. Saunders Coll.
f''–*h''*. ♂ ♀ ad. et juv. sk.	Valencia, March (*R. Martin*).	H. Saunders Coll.
i''. Juv. [wings].	Ajaccio, Corsica [figd. P. Z. S. 1878, p. 201] (*C. B. Wharton*).	H. Saunders Coll.
k''. ♂ ad. sk.	Eubœa, Greece, Feb. (*H. J. Elwes*).	H. Saunders Coll.
l''. ♂ ad. sk.	Bosphorus, April (*Robson*).	Hume Coll.
m''. ♀ ad. sk.	Cyprus, Dec.	Shelley Coll.
n'', *o''*. ♂ ♀ juv. sk.	Sea of Galilee.	Canon Tristram [C.].
p'', *q.''* ♂ ♀ ad.; *r''*, *s''*. ♀ juv. sk.	Egypt, Feb., March.	Shelley Coll.
t''. ♀ ad. sk.	Zifte, Lower Egypt, April (*S. S. Allen*).	Gould Coll.
u''. Ad. sk.	Upper Euphrates, July (*A. Huet du Pavillon*).	Gould Coll.
v''. Ad. et juv. sk.	Muscat.	Col. Mills [P.].
w''. ♀ ad.; *x''*. ♀ juv. sk.	Muscat, Feb.	Hume Coll.
y''. ♂ ad. sk.	Gwader, Mekran Coast, Feb.	Hume Coll.
z'', *a*^{3}. ♂ ♀ ad. sk.	Cape Monze, Sind, Feb. (*W. T. Blanford*).	Hume Coll.
b^3–*d*^{3}. ♂ ♀ ad.; *e*^{3}, *f*^{3}. Juv. sk.	Karachi, Feb.–April (*E. A. Butler*).	Hume Coll.
g^3, *h*^{3}. Ad. sk.	Madho-Mehur, Upper Sind, Jan.	Hume Coll.
i^3. ♂ ad. sk.	Kandahar, March.	Hume Coll.
k^3, *l*^{3}. ♀ ad. et ♂ juv. sk.	Kandahar, March & Dec.	Col. Swinhoe [P.].
m^3, *n*^{3}. ♂ ad. sk.	Argandab River, Feb.	Col. Swinhoe [P.].
o^3. ♀ ad. sk.	Gulran, Afghanistan, March 1885 (*Dr. Aitchison*).	Afghan Delimitation Commission.
p^3, *q*^{3}. Ad. sk.	Kashgar, winter plumage.	India Museum [P.].
r^3. ♂ ad. sk.	Lob-nor, Eastern Turkestan, April (*Prjevalsky*).	Seebohm Coll.
s^3. ♂ juv. sk.	Wollar Lake, Kashmir, Oct.	Col. Biddulph [P.].
t^3. ♂ ad. sk.	Jhelum, Kashmir, Nov.	Hume Coll.
u^3. Juv. sk.	Sirsa district, Nov.	Hume Coll.

v^3, w^3. ♀ ad.; x^3. ♀ juv. sk.	Sambhur, Rajpootana, March (*R. M. Adam*).	Hume Coll.
y^3, z^3. ♂ ad.; a^4. b^4. ♂ ♀ juv. sk.	Sambhur, Rajpootana, Nov., Dec. (*A. O. H.*).	Hume Coll.
c^4. ♀ juv. sk.	Sambhur Lake, Nov., Dec.	Hume Coll.
d^4, e^4. ♂ ♀ ad.; f^4. ♀ juv. sk.	Sambhur Lake, Nov.–March (*A. O. H.*).	Hume Coll.
g^4. ♀ ad. sk.	Ajmere, Rajpootana, Dec.	Hume Coll.
h^4, i^4. ♂ ♀ ad. sk.	Gurgaon, Feb.	Hume Coll.
k^4. ♀ ad. sk.	Sultanpur, Gurgaon, Nov. (*W. N. Chill*).	Hume Coll.
l^4, m^4, n^4. Ad. sk.	Delhi, summer and winter (*A. O. H.*).	Hume Coll.
o^4–q^4. ♂ ♀ ad. et juv. sk.	Allahabad, Feb., March, and Dec.	Hume Coll.
r^4. Ad. sk.	Nepal, spring.	B. H. Hodgson, Esq. [P.].
s^4. Ad. sk.	Dipur Bheel, Assam, Nov. (*A. W. Chennell*).	Tweeddale Coll.
t^4. Juv. sk.	Mymensing.	Tweeddale Coll.
u^4–x^4. ♂ ♀ ad. sk.	Soane River, Dinapur, Dec.	Hume Coll.
y^4. ♂ ad. sk.	Bombay, Jan. 29.	Hume Coll.
z^4. Ad. sk.	Deccan (*Col. Sykes*).	India Museum [P.].
a^5, b^5. ♂ ♀ ad. sk.	Travancore, Feb.	F. Bourdillon, Esq. [C.].
c^5. Ad. sk.	Assam, "*L. alienus*" (*McClelland*).	India Museum [P.]
d^5. ♂ juv. sk.	Manila, Jan.	'Challenger' Exped.
e^5. Ad. hiem. st.	China.	J. R. Reeves, Esq. [P.].
f^5. Imm. sk.	Amoy (*R. Swinhoe*).	Seebohm Coll.
g^5–k^5. Ad. et juv. sk.	Kiukiang and Poyang Lake, Yang-tse, Nov.–Jan.	F. W. Styan, Esq. [P.].
l^5. ♂ ad. sk.	Nagasaki, S. Japan, Jan.	F. Ringer, Esq. [P.].
m^5–p^5. ♂ ♀ ad. et juv. sk.	Yokohama, S. Japan, May.	'Challenger' Exped.
q^5, r^5. Ad. et juv. sk.	Yokohama.	Capt. Blakiston [P.].
s^5, t^5. Ad. sk.	Yokohama (*H. Pryer*).	Seebohm Coll.
u^5, v^5. ♂ ad. et juv. sk.	Yedo Gulf, Jan. (*Admiral St. John*).	H. Saunders Coll.
w^5–y^5. ♂ ♀ ad. et juv. sk.	Hakodadi, April (*Capt. Blakiston*).	Seebohm Coll.
z^5. ♀ juv. sk.	Hakodadi, May (*H. Whiteley*).	Tweeddale Coll.
a^6. ♂ ad. sk.	Kamtschatka, June.	Capt. Blakiston [P.].
b^6, c^6. Ad. sk.	Kamtschatka (*Vosnessensky*).	Seebohm Coll.
d^6. ♀ juv. sk.	Scharkalskaja, Ob River, Sept.	Dr. O. Finsch [C.].
e^6. Skeleton.	England.	Purchased.
f^6. Skeleton.	England.	Zoological Soc. [P.].
g^6. Sternum.	England.	T. Ingall, Esq. [P.].
h^6. Sternum.	Europe.	Purchased.

13. Larus brunneicephalus.

Larus brunneicephalus, *Jerd. Madras Journ.* xii. p. 25 (1840); *Gray, Gen. B.* iii. p. 654 (1846); *Blyth, Cat. B. Mus. As. Soc.* p. 289 (1849); *Layard, Ann. & Mag. Nat. Hist.* xiv. p. 270 (1854: Ceylon); *Gray, Cat. Mamm. &c. pres. Hodgson*, 2nd ed. p. 77 (1863); *Schl. Mus. P.-Bas*, Lari, p. 35 (1863); *Gray, Hand-l. B.*

iii. p. 114, no. 10983 (1871); *Adam, Str. F.* 1873, p. 402 (Sambhur Lake); *Oates, op. cit.* 1875, p. 347; *Butler, op. cit.* 1876, p. 31 (N. Guzerat); *Armstrong, t. c.* p. 350 (Irrawaddy); *Hume & Davison, op. cit.* 1878, pt. i. p. 491 (Tenasserim); *Cripps, op. cit.* 1878, pt. ii. p. 313 (E. Bengal); *Saunders, P. Z. S.* 1878, p. 197 (revision); *id. Journ. Linn. Soc., Zool.* xiv. p. 399 (1878: distribution); *Prjev. in Rowley's Orn. Misc.* iii. p. 109 (1878: Dalai Nor; breeds on lakes in Hoang-ho Valley, but not in China proper); *Hume, Str. F.* viii. p. 115 (1879: List); *Vidal, Str. F.* ix. p. 94 (1880: Malabar coast); *Legge, B. Ceylon*, p. 1049 (1880); *Butler, Str. F.* ix. p. 439 (1881: Deccan); *Salvin, Cat. Strickl. Coll.* p. 621 (1881); *Oates, B. Brit. Burm.* ii. p. 417 (1883); *Hume, Str. I.* xi. p. 439 (1888: Manipur); *Sharpe, 2nd Yark. Miss., Birds*, p. 134 (1891: 15,000 ft. elevn.); *Barnes, Ibis*, 1893, p. 175 (Aden, in winter); *Oustal. N. Archiv. Mus. Paris*, (3) vi. p. 94 (1894: Tibetan plateau).

Xema brunneicephala, *Gray, List B. Brit. Mus.*, Anseres, p. 172 (1844); *Jerd. B. Ind.* iii. p. 832 (1864); *Holdsworth, P. Z. S.* 1872, p. 480 (Ceylon); *Lloyd, Ibis*, 1873, p. 420 (Kattiawar, winter); *Hume & Henders. Lahore to Yark.* p. 300, pl. xxxii. (1873: Pangong Lake); *Blyth & Wald. B. Burm.* p. 162 (1875); *Scully, Str. F.* iv. p. 203 (1876: Kashgar); *W. Ramsay, Ibis*, 1877, p. 472 (Sittang River up to Tonghoo).

Chroicocephalus brunneicephalus, *Bruch, J. f. O.* 1853, p. 105; *Swinh. P. Z. S.* 1871, p. 421; *David et Oust. Ois. Chine*, p. 521 (1877: Mongolia).

Chroicocephalus brunniceps, *Cab. J. f. O.* 1853, p. 105 (note); *Bruch, J. f. O.* 1855, p. 291.

Larus lacrymosus, *Licht. Nomencl. Av.* p. 99 (1854: Bengal*).

Gavina lacrymosus (*Licht.*), *Bp. Naum.* 1854, p. 212.

Gavia brunnicephala, *Bp. Naum.* 1854, p. 213; *id. C. R.* xlii. p. 771 (1856).

Chroicocephalus tibetanus, *Gould, P. Z. S.* 1864, p. 54 (Tibet: Major Hay).

Larus tibetanus, *Gray, Hand-l. B.* iii. p. 114, no. 10984 (1871).

Xema brunneicepbalum, *David, N. Archiv. Mus. Paris, Bull.* vii. no. 460 (1871).

Larus (Chroicocephalus) brunicephalus, *Stoliczka, Journ. As. Soc. Beng.* xli. p. 256 (1872: Kutch, winter).

Adult male in breeding-plumage. Larger than the preceding species, but very similar in general appearance; the brown hood is, however, paler on the forehead, and consequently throws into stronger contrast the blackness at the junction with the white neck, while the pattern of the primaries is quite different, black being the prevailing colour; the two outer quills black, with elongated white subterminal mirrors and a small amount of white at the base (*see cut*, p. 217); the 3rd quill with more white at the base, but otherwise black, though occasionally—in very old birds—with a small white subterminal spot; 4th and 5th quills with the basal white increasing and extending to both webs; 6th quill white on the outer and grey on the inner webs, subterminally banded with black, and tipped with white; 7th quill with a whitish tip, grey webs, a black spot or incomplete subterminal bar, and a black inner margin; 8th quill grey, with narrow dark inner margin; 9th and 10th quills grey:

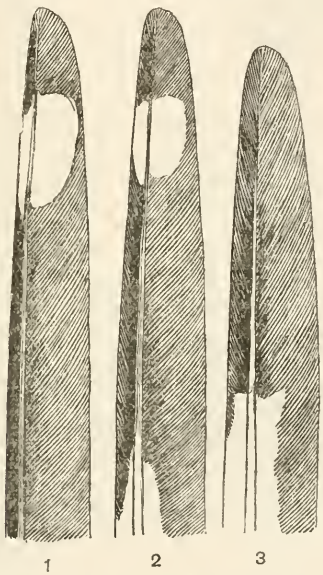
* Type in Berlin Museum examined.

iris white; bill red, brownish at the tip; tarsi and toes red. Total length 17 inches, culmen 1·9, wing 13, tail 5·7, tarsus 1·9, middle toe with claw 1·7.

Adult female. Like the male, but smaller.

Adult in winter plumage. Like the above, but without the hood; the occiput and auriculars mottled with dusky grey.

Young. Similar to the young of *L. ridibundus*, except as regards the primaries, which are chiefly sooty brown, with white on the basal portion, increasing successively from the 4th inwards: bill, tarsi, and toes dull reddish or ochraceous: "iris hazel" (*Legge*).



Larus brunneicephalus, ad.

Immature. I am not acquainted with any well-defined stage. With increasing age the brown mottlings on the wings of the young gradually disappear, the band on the tail narrows, and the white at the base of the primaries gradually increases until moulting-time arrives; but I have never seen a specimen with any brown on the wing-coverts accompanied by incipient mirrors on the 1st and 2nd quills. All I can say is that some adults have rather smaller mirrors than others.

Hab. Highlands of Central Asia, from Turkestan to Tibet and Mongolia (breeding); in winter, as far west as Aden, along the intervening coast to India, and throughout the greater part of that country, Ceylon, Burma and Tenasserim. Never found on the coast of China, nor even beyond the Upper Hoang-ho valley.

a. Ad. sk.	"India."	Hardwicke Bequest.
b, c. Juv. sk.	Kaora, Pacham, Nov.	Hume Coll.
d. ♂ juv. sk.	Madho-Mehur, W. Sind, Jan.	Hume Coll.
e, f. ♂ juv. sk.	Karachi, Feb.	Hume Coll.
g–i. ♂ ♀ ad. sk.	Karachi, March–May (*Col. E. A. Butler*).	Hume Coll.
k, l. Ad. sk.	Karachi, winter (*W. B. Muloch*).	H. Saunders Coll.
m. Ad. sk.	Kattiawar, Oct.	Major Hayes Lloyd [P.].
n. Juv. sk.	Kattiawar, Oct.	J. Gould, Esq. [P.].
o. Ad. sk.	Sirsa, winter.	Hume Coll.
p. Ad. sk.	Ajmere, Nov.	Hume Coll.
q, r. ♂ ad. sk.	Sambhur, Jan. & March (*R. M. Adam*).	Hume Coll.
s. ♂ juv. sk.	Sambhur, Dec. (*A. O. H.*).	Hume Coll.
t–w. ♀ ad. sk.	Sambhur Lake, March (*A. O. H.*).	Hume Coll.
x–z, a'. ♂ ♀ ad. sk.	Gurgaon, Jan.–March (*A. O. H.*).	Hume Coll.
b'. ♂ ad. sk.	Sultanpur, Gurgaon, March (*A. O. H.*).	Hume Coll.
c'. ♂ ad. sk.	Sultanpur, April (*W. N. Chill*).	Hume Coll.
d'. Ad. sk.	Delhi.	Hume Coll.
e'. Ad. sk.	Kashmir.	E. M. Langworthy, Esq. [P.].
f'. Juv. sk.	Kashmir.	Hume Coll.
g'. Ad. sk.	Chagra, July (*Dr. G. Henderson*).	Hume Coll.
h'–k'. Ad. sk.	Ladak (*Gen. Strachey*).	India Museum [P.].
l', m'. Ad. sk.	Thibet.	Lord Gifford [P.].
n'. Ad. sk.	Thibet, 10,000 ft. (*Major Hay*).	Gould Coll.
o'. Ad. sk.	Thibet, May 1875.	Hume Coll.
p'. Juv. sk.	Thibet [a dwarf], Sept. 1874.	Hume Coll.
q'. ♀ ad. sk.	Koko-nor (*Prjevalsky*).	Seebohm Coll.
r'. Juv. sk.	Oudh, Dec.	Hume Coll.
s'. ♀ juv. sk.	Futtehgurh, Oct. (*A. Anderson*).	Seebohm Coll.
t'. ♂ ad. sk.	Nujjufgurh Jheel, Dec. (*A. O. H.*).	Hume Coll.
u'. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
v'. Juv. sk.	Nepal.	Tweeddale Coll.
w'. ♂ ad. sk.	Magua R., Bengal, Jan.	Hume Coll.
x', y'. Ad. et ♀ juv. sk.	Gopalpore, March (*W. Davison*).	Hume Coll.
z', a''. Ad. sk.	Dacca, winter.	Hume Coll.
b''–d''. ♂ ♀ ad. sk.	Bombay Harbour, Jan. 30 (*A. O. H.*).	Hume Coll.
e''. Ad. sk.	Cananore (*Haines*).	Tweeddale Coll.
f''. ♂ ad. sk.	Quilon, Travancore, Feb. 1880.	Hume Coll.
g'', h''. Ad. sk.	Madras, winter.	Dr. T. C. Jerdon [P.].
i'', k''. ♀ ad. sk.	Madras, March.	Hume Coll.
l'', m''. ♀ juv. sk.	Trincomalee, Ceylon, Oct.–Nov. (*Col. W. V. Legge*).	H. Saunders Coll.
n''. ♂ ad. sk.	Akyab, Burma, Nov. (*E. W. O.*).	E. W. Oates Coll.
o''. ♀ ad. sk.	Kouk-phyon harbour, April (*J. Armstrong*).	Hume Coll.

p''. ♂ ad. sk.	Pegu, April (*E. W. O.*).	E. W. Oates Coll.
q''. ♂ juv. sk.	Lower Pegu, Nov. (*E. W. O.*).	E. W. Oates Coll.
r'', *s''*. ♀ juv. sk.	Lower Pegu, Oct.–Nov. (*E. W. O.*).	H. Saunders Coll.
t''. Juv. sk.	Rangoon river, Feb. (*J. Armstrong*).	Hume Coll.
u''. Juv. sk.	Near Thatone, Dec. (*W. Davison*).	Hume Coll.
v''. Juv. sk.	Salween, Feb. (*W. D.*).	Hume Coll.
w''. ♂ juv. sk.	Khykehto, Tenasserim, Feb. (*W. D.*).	Hume Coll.
x''. ♂ ad. sk.	Amherst, Tenasserim, March.	Hume Coll.
y'', *z''*. ♀ juv. sk.	Bopyin, Tenasserim, Dec. (*W. D.*).	Hume Coll.
a^3, *b*^{3}. ♂ ♀ juv. sk.	Bopyin, Tenasserim, Dec. (*W. D.*).	H. Saunders Coll.

14. Larus leucophthalmus.

Larus leucophthalmus, *Temm. Pl. Col.* livr. 62, pl. 366 (1825, *ex Licht.*); *Werner, Atlas, Palmipèdes*, pl. 29 (1828); *Lesson, Traité*, p. 618 (1831: Red Sea); *Temm. Man. d'Orn.* pt. iv. p. 486 (1840); *Schl. Rev. Crit.* p. cxxvi (1844); *Des Murs in Lefebvre's Voy. Abyss.* vi. p. 174 (1845); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 322 (1849); *Heugl. Syst. Uebers.* p. 69 (1856: Red Sea); *id. Ibis*, 1859, p. 349 (Red Sea); *id. in Peterm. Mitth.* 1861, pp. 29, 312 (Lower Red Sea and Somali); *König-Warth. Ibis*, 1860, p. 129 (Perim, breeding); *Linderm. Vög. Griechenl.* p. 177 (1860) [?]; *A. E. Brehm, Reis. Habesch*, p. 228 (1863); *Schleg. Mus. P.-Bas*, Lari, p. 32 (1863); *Bree, B. Eur.* iv. p. 95, fig. (1866); *Degl. et Gerbe, Orn. Eur.* ii. p. 430 (1867); *Finsch & Hartl. Vög. Ostafr.* p. 821 (1870); *Finsch, Tr. Zool. Soc.* vii. p. 302 (1870): *Blanford, Geol. & Zool. Abyss.* p. 441 (1870: Annesley Bay); *Gray, Hand-l. B.* iii. p. 113, no. 10978 (1871); *Shelley, B. Egypt*, p. 308 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1396 (1873); *Bree, B. Eur.* 2nd ed. v. p. 67 (1876); *Vian, Bull. Soc. Zool. Fr.* 1877, p. 32 (Nice) [?]; *Saunders, P. Z. S.* 1878, p. 193 (revision); *Klunzinger, Zschr. Ges. Erdk. Berlin*, xiii. Hft. 2, p. 90 (1878: Koseir, Red Sea); *Hartl. P. Z. S.* 1881, p. 959 (Hami, S. Arabia); *Hartert, Kat. Vogelsamml. Senckenb.* p. 241 (1891: Red Sea).

Xema leucophthalmum, *Bp. Ucc. Eur.* p. 78, *t.* (1842); *Rüpp. Syst. Uebers.* p. 139 (1845).

Xema leucophthalma, *Gray, List B. Brit. Mus.*, Anseres, p. 171 (1844: Abyssinia).

Adelarus leucophthalmus, *Bruch, J. f. O.* 1853, p. 106; *id. op. cit.* 1855, p. 278; *Bp. C. R.* xlii. p. 771 (1856); *Blas. J. f. O.* 1865, p. 378 (revision); *Salvad. Faun. Ital., Ucc.* p. 286 (1872); *Antin. & Salvad. Viagg. Bogos*, p. 155 (1873: Massowa); *Salv. & Gigl. Mem. Accad. Tor.* xxxix. p. 104 (1889: Maldive Isl.) [?].

Chroicocephalus leucophthalmus, *Licht. Nomencl. Av.* p. 98 (1854); *Brehm, Naum.* 1855, p. 295.

Larus masauanus, *Heugl. in Peterm. Mitth.* 1861, p. 31 (Lower Red Sea and Somali coast; admittedly a bad species; cf. *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1397).

Adelolarus leucophthalmus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890).

Adult in breeding-plumage. Head, nape, and throat down to the upper breast deep black; eyelids and hind neck white; mantle deep slate-colour; wing-coverts and long secondaries rather darker; principal secondaries with blackish centres, and broad white edges which form a conspicuous alar band; primaries chiefly sooty black, the 5th and upwards tipped with white, which increases slightly on the innermost; tail-feathers white, with a greyish tinge at the base of the central pairs; abdomen and lower breast white; flanks and sides of the breast slate-grey; under wing dark slate-colour: iris white: bill long and slender, reddish orange to the angle, then blackish; tarsi and toes yellowish. Total length 15·6 inches, culmen 2, wing 12·3, tail 4·75, tarsus 1·75, middle toe with claw 1·6. The sexes appear to be alike in size.

Adult in winter. I am not acquainted with any characteristic phase. During the moult the head is probably mottled, through the contrast of the old worn feathers and the new ones; but the hood never seems to be lost.

Young. Head and neck ash-brown, flecked with dull white; chin and throat white, the latter streaked with brown; upper surface and a band across the breast dark ash-brown; wing-coverts mottled with clove-brown; secondaries dark brown, edged with white; primaries umber-brown, the inner ones with paler tips; tail-coverts white; rectrices umber-brown, the two outer pairs mottled with greyish; abdomen white, flanks greyish; under wing dark brown: bill horn-colour, black terminally; tarsi and toes ochraceous.

Immature. Greyer above, with a gradual increase of white in the tail-feathers until the umber-brown therein becomes a subterminal band, and, after clinging to the shaft till reduced to mere spots, finally disappears; a black hood is gradually assumed, and is often perfected before the tail-feathers have lost their spots.

Hab. Red Sea, from Koseir southward, and the coasts of the Gulf of Aden. Lower Egypt, the Greek Archipelago and Sicily, according to writers who were either misinformed as to the locality of capture, or (in the majority of instances) confused this species with *L. melanocephalus*, which has also conspicuous white eyelids. I have examined an example said to have been obtained at Nice, but its history was not satisfactory. According to Salvadori and Giglioli, a specimen was procured at the Maldive Islands: an enormous extension of range, if the identification is correct.

a. Ad. st.	Abyssinian coast (*Rüppell*).	Frankfort Mus.
b. Ad. sk.	Annesley Bay, Abyssinia, June 1868.	W. T. Blanford [C.].
c–e. ♂ ♀ ad., imm., et juv. sk.	Zoulla, Annesley Bay, Abyssinia, June (*W. Jesse*).	Tweeddale Coll.
f–k. Ad., imm., et juv. sk.	Zoulla, Annesley Bay, Abyssinia, June (*W. Jesse*).	H. Saunders Coll.

15. Larus hemprichi.

Xema crassirostris, *Boie* (*nec Vieill.*), *Isis*, 1844, p. 192 (*ex Licht. MS.*).
Adelarus hemprichii, *Bruch, J. f. O.* 1853, p. 106 (*ex Bp. MS.*); *id. op. cit.* 1855, p. 278 (Red Sea); *Bp. Naum.* 1854, p. 212; *id. C. R.* xlii. p. 771 (1856); *Blasius, J. f. O.* 1865, p. 378; *Antin. & Salvad. Viagg. Bogos*, p. 156 (1873).
Larus crassirostris, *Licht.* (*nec Vieill.*) *Nomencl. Av.* p. 99 (1854: Arabian coast).
Larus hemprichi, *Heugl. Ibis*, 1859, p. 350 (Red Sea); *König-Warth. Ibis*, 1860, p. 129 (Amarat Is., Red Sea, breeding); *Heugl. in Peterm. Mitth.* 1861, p. 29 & p. 312 (Lower Red Sea); *Schleg. Mus. P.-B.*, Lari, p. 32 (1863); *A. E. Brehm, Reis. Habesch*, p. 228 (1863); *Finsch, Tr. Zool. Soc.* vii. p. 302, pl. xxvii. (1870); *Blanford, Geol. & Zool. Abyss.* p. 441 (1870: Lower Red Sea); *Finsch & Hartl. Vög. Ostafr.* p. 823 (1870); *Gray, Hand-l. B.* iii. p. 114, no. 10979 (1871: Gulf of Aden); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1399, tab. 36. fig. 2 (1873); *Blanford, East. Persia*, ii. p. 292 (1876: Aden to Karachi); *Hume, Str. Feath.* i. p. 279 (1873: Sind); *id. op. cit.* iv. p. 414 (1876: Bombay); *Vian, Bull. Soc. Zool. Fr.* 1877, p. 32 (Nice [?]); *Butler, Str. Feath.* v. p. 296 (1877: Astolah I., breeding); *Saunders, P. Z. S.* 1878, p. 193 (revision); *Hume, Str. F.* viii. p. 115 (1879: List); *Butler, Str. F.* ix. p. 439 (1881: as far east as Bombay); *Salvad. Ann. Mus. Civ. Genov.* (2) i. p. 276 (1884: Shoa); *Verbury & Sharpe, Ibis*, 1886, p. 22 (Aden); *Sharpe, t. c.* p. 168 (Muscat); *Shelley, Ibis*, 1888, p. 306 (Manda I., East Africa, abundant); *Oates, 2nd ed. Hume's N. & E. Ind. B.* iii. p. 293 (1890: Astolah I.); *Hartert, Kat. Vogelsamml. Senckenb.* p. 241 (1891: Red Sea); *Barnes, Ibis*, 1893, p. 176 (Aden); *Finn, t. c.* p. 233 (Aden); *Reichenow, Vög. Deutsch-Ost-Afr.* p. 19 (1894: Tanga).
Adelolarus crassirostris (*nec Vieill.*), *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890).

Adult in breeding-plumage. Similar in pattern to the preceding, but larger, and brown, instead of black and slate-colour. Head and throat coffee-brown, darkening on the nape and contrasting strongly with the white lower neck; eyelids white; mantle and wing-coverts coffee-brown; the long secondaries with pale tips; the principal secondaries with blackish centres and broad white edges, which form a conspicuous alar band; primaries chiefly blackish, the 4th and succeeding ones with white tips, which increase ascendingly; tail white; abdomen and lower breast white; flanks and upper breast greyish brown; under wing umber-brown: bill rather stout, greenish yellow to the angle, which is zoned with black, the anterior portion reddish; iris hazel; tarsi and toes olive-green. Total length 17·5 inches, culmen 2·25, wing 13·25, tail 5·5, tarsus 2, middle toe with claw 1·8.

The sexes appear to be alike in size as well as plumage.

Immature and *Young.* Allowing for the browner tint generally, the phases of plumage are precisely like those of *L. leucophthalmus*, except that there is no grey tint in the tail-feathers, and these are more broadly tipped with white: bill, tarsi, and toes darker than in the adult.

Hab. Lower Red Sea, Gulf of Aden, coast of East Africa down to

Tanga. Arabian and Mekran coast, and India as far as Bombay. Like *L. leucophthalmus*, said to have been obtained at Nice, and by the same dealer.

a. Juv. sk.	Jedda (*Zohrab*).	Shelley Coll.
b, *c*. Ad. et juv. sk.	Massowah, August (*W. T. Blanford*).	Abyssinian Exped.
d. Vix ad. sk.	Zoulla, June (*W. T. Blanford*).	Abyssinian Exped.
e, *f*. Imm. sk.	Zoulla, June (*W. Jesse*).	Tweeddale Coll.
g. Vix ad. sk.	Zoulla, June (*W. Jesse*).	H. Saunders Coll.
h. Vix ad. st.	Aden (*E. L. Layard*).	Purchased.
i–*m*. ♀ juv. et imm. sk.	Aden, October (*E. L. Layard*).	H. Saunders Coll.
n. Imm. sk.	Aden, August (*W. T. Blanford*).	Abyssinian Exped.
o, *p*. Ad. sk.	Aden (*Capt. H. Feilden, R.A.*).	H. Saunders Coll.
q. ♂ ad.; *r*. Juv. sk.	Manda Island (November).	F. J. Jackson, Esq. [P.].
s–*z*. ♂ ♀ imm.; *a'*–*e'*. ♂ ♀ juv. sk.	Muscat, S. Arabia, Feb.	Hume Coll.
f'. ♂ imm. sk.	Gwader, Mekran Coast, Jan.	W. T. Blanford [C.].
g'–*n'*. ♂ ♀ imm. et vix ad. sk.	Gwader, Mekran Coast, Feb.	Hume Coll.
o'. ♂ vix ad. sk.	Pusni, Mekran Coast, Feb.	Hume Coll.
p', *q'*. ♀ ad. sk.	Near Astolah, Mekran Coast, May 27 (*Col. E. A. Butler*).	Hume Coll.
r'. ♀ imm. sk.	Soonmeani Bay, Mekran Coast, Feb. (*A. O. H.*).	Hume Coll.
s'. ♂ ad. sk.	Cape Monze, Sind, Feb. 27 (*W. T. Blanford*).	Hume Coll.
t'. Imm. sk.	Karachi, Sind, Jan. (*W. T. Blanford*).	H. Saunders Coll.
u'–*w'*. ♂ imm. sk.	Karachi, Sind, Feb. (*A. O. H.*).	Hume Coll.
x'. ♂ juv. sk.	Karachi, Sind, March (*W. T. Blanford*).	Hume Coll.
y', *z'*, *a''*. ♀ vix ad. sk.	Karachi, Sind, April (*Col. E. A. Butler*).	Hume Coll.
b''. Sternum.	Massowa (*W. T. Blanford*).	Abyssinian Exped.

16. Larus fuliginosus.

Larus fuliginosus, *Gould, in Darwin's Voy. 'Beagle,' Birds*, p. 141 (1841 : James I., Galápagos) ; *Gray, List B. Brit. Mus.*, Anseres, p. 170 (1844 : partim, as regards the Galápagos) ; *id. Gen. B.* iii. p. 654 (1846) ; *Sundev. P. Z. S.* 1871, p. 125 (Voy. 'Eugénie') ; *Scl. & Salv. P. Z. S.* 1871, p. 573 (Neotrop. Larinæ) ; *iid. Nomencl. Av. Neotrop.* p. 148 (1873) ; *Salvin, Tr. Zool. Soc.* ix. p. 505, pl. lxxxvii. (1876) ; *Saunders, P. Z. S.* 1878, p. 184 (revision Larinæ) ; *id. Journ. Linn. Soc., Zool.* xiv. p. 396 (1878 : distribution) ; *Ridgw. Proc. U.S. Nat. Mus.* xii. p. 116 (1891).

Leucophæus fuliginosus, *Bp. Rev. Zool.* 1855, p. 20 ; *id. Consp. Av.* ii. p. 232 (1857) ; *id. C. R.* xlii. p. 771 (1856).

Adelarus neptunus, *Bp. Consp. Av.* ii. p. 232 (1857).

Blasipus belcheri (part.), *Blasius* (*nec Vigors*), *J. f. O.* 1865, p. 378 (revision).

Larus heermanni (part.), *Gray* (*nec Cass.*), *Hand-l. B.* iii. p. 116, no. 11012 (1871 : as regards the Galápagos Is.).

Adult male in breeding-plumage. Head all round black, eyelids white; upper surface chiefly dark lead-grey; secondaries paler and almost white at their tips, forming by contrast a fairly conspicuous alar band; primaries chiefly black, tipped with grey from the 4th upwards, and passing into lead-grey from the 6th inwards; tail-coverts rather pale grey; rectrices much darker grey, except the two outer pairs; under tail-coverts nearly white; abdomen pale lead-grey, flanks darker; upper breast and under wing-coverts darkest: bill stout, and short in front of the angle, lake-red; tarsi and toes livid black. Total length 17·2 inches, culmen 2, wing 14, tail 6·5, tarsus 2·2, middle toe with claw 2.

Adult female. Similar, but decidedly smaller. Length 15 inches, culmen 1·8, wing 12·8, tarsus 2·1.

Immature. Similar, but more uniformly sooty in general appearance: the hood less defined, the alar band dull grey and inconspicuous: the rectrices with remains of a black subterminal band: tarsi and toes reddish brown.

Young. Head dark sooty brown; mantle and wing-coverts rather paler brown at the edges of the feathers; quills and tail-feathers dark umber-brown; tail-coverts paler, and the flanks inclining to grey; under surface brown, darkest on the upper breast: bill, tarsi, and toes reddish black.

It will be seen that *L. fuliginosus* differs materially from the next section of Gulls—the species peculiar to the Pacific—inasmuch as it has a well-defined black hood and a perfectly plain unbanded tail. In the following group the tail exhibits more or less black in the adult, while the head is white or pale grey.

Hab. Galápagos Archipelago.

a. Vix ad. st.	James Is., Galápagos [? an typus].	Sir W. Burnett and Capt. Fitzroy, R.N. [P.].
b. Vix ad. sk.	James Is., Galápagos.	Charles Darwin, Esq. [P.].
c. ♂ ad. sk.	Abingdon Is., Galápagos (*Dr. A. Habel*).	Salvin-Godman Coll.
d. ♀ juv. sk.	Indefatigable Is., Galápagos, Aug. (*Dr. A. Habel*).	Salvin-Godman Coll.
e. ♀ ad. sk.	Indefatigable Is., Galápagos, Aug. (*Dr. A. Habel*).	H. Saunders Coll.

17. Larus modestus.

Larus modestus, *Tschudi, Wiegm. Arch.* 1843, pt. i. p. 389; *id. Faun. Peruan., Aves,* p. 53 & p. 306, pl. 35 (1845–46); *Gray, Gen. B.* iii. p. 654 (1846); *Gay, Hist. Chile, Zool.* i. p. 483 (1847); *Reichenb. Natat. Novit.* xii. tab. 275. fig. 2284 (1852); *Pelz. Reis. Novara, Vög.* p. 151 (1865: Chile); *Sel. & Salv. P. Z. S.* 1871, p. 573; *iid. Nomencl. Av. Neotrop.* p. 148 (1873); *Gray, Hand-l. B.* iii. p. 116, no. 11010 (1871: Chile); *Saunders, P. Z. S.* 1878, p. 183 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 396 (1878: distribution); *Salvin, Cat. Strickl. Coll.* p. 620 (1882: Chile); *Taczan. Orn. Pérou,* iii. p. 449 (1886); *Berlepsch & Stolzm. P. Z. S.* 1892, p. 400.

Larus fuliginosus (part.), *Gray, List B. Brit. Mus.*, Anseres, p. 170 (1844: as regards Chile).
Larus bridgesi, *Fraser, P. Z. S.* 1845, p. 16; *id. Zool. Typ.* pl. 69 (1849: Chile); *Reichenb. Natat. Novit.* xviii. tab. 281. fig. 2317 (1852); *Cassin, U.S. Astronom. Exped.* ii. p. 205 (1855: Chile).
Blasipus bridgesi, *Bruch, J. f. O.* 1853, p. 108; *id. op. cit.* 1855, p. 280; *Bp. Rev. Zool.* 1855, p. 21; *id. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 212 (1857); *Blasius, J. f. O.* 1865, p. 378 (revision).
Chroicocephalus modestus, *Licht. Nomencl. Av.* p. 98 (1854).
Larus pollos, *Natt. MS.* fide *Bp. Rev. Zool.* 1855, p. 21; *id. Consp. Av.* ii. p. 212 (1857).
Epitelolarus modestus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890).

Adult in breeding-plumage. Forehead and chin white, gradually shading into pale grey on the crown and throat, and darker grey on the neck and underparts; mantle, wing-coverts, and long inner secondaries lead-colour; principal secondaries with black centres and wide white edges to their outer webs, forming a conspicuous alar band; quills chiefly sooty black, the four upper ones tipped with greyish white; tail-feathers plumbeous, with a subterminal black band, which varies in completeness and definition with the age of the feathers—being broad and crossing both webs when the feather is new, while sometimes reduced to a spot on each web when the feather is old; the tips of the rectrices grey, whiter on the outermost; under wing-coverts dark brownish grey: "iris black" (*Rowland*); bill, tarsi, and toes black with a reddish tinge. Total length 18 inches, culmen 2 to 2·1, wing 13, tail 5·5; tarsus 1·9, rather slender; middle toe with claw 1·75, delicate, claw curved.

The *male* is probably a trifle larger, with a more robust bill than the female, but the specimens in which the sex has been ascertained by dissection are few in number. Cassin (U.S. Astronom. Exped.) thought that it was the male which had the wide black band on the tail, while this was imperfect in the female, but his view requires confirmation.

Immature. Similar, but with a duller tinge; the head dirty white to brownish on the nape and throat, where the colour deepens and forms a faint collar: bill, tarsi, and toes dark reddish brown.

Young. Much browner on the upper and under surfaces; the primaries and secondaries dark umber-brown, with narrow tawny edges to the latter; tail-coverts dull grey; rectrices dark brown with paler tips.

Hab. Coasts of Peru and Chile: inland as far as Santiago.

a, b. Juv. et vix ad. st.	Chile (*Bridges*).	Purchased.
c. Vix ad. sk.	Valparaiso (*Bridges*).	Purchased. (Type of *L. bridgesi*, Fraser.)
d. Vix ad. sk.	Near Valparaiso.	H. Berkeley James, Esq. [P.].
e. ♀ ad.; *f.* Juv. sk.	Iquique, Prov. Tarapacá (*S. F. Rowland*).	H. Saunders Coll.
g. Imm. sk.	Callao Bay, Peru (*R. Jump*).	H. Saunders Coll.

18. Larus heermanni.

Larus heermanni, *Cass. Pr. Philad. Acad.* vi. p. 187 (1852); *id. B. Calif.* p. 28, pl. v. (1856); *Salvin, Ibis*, 1865, p. 190; *id. op. cit.* 1866, p. 198 (Chiapam); *Gray, Hand-l. B.* iii. p. 116, no. 11012 (1871: as regards California); *Scl. & Salv. P. Z. S.* 1871, p. 574; *iid. Nomencl. Av. Neotr.* p. 148 (1873); *Saunders, P. Z. S.* 1878, p. 182 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 396 (1878: distribution); *Deane, Bull. Nutt. Orn. Club*, iv. p. 30 (1879: albinistic var.); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Coues, Check-list N. Amer. B.* p. 121 (1882); *id. Key N. Amer. B.* 2nd ed. p. 747 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 252 (1884); *A. O. U. Check-l. N. Amer. B.* p. 90 (1886); *Evermann, Auk*, 1886, p. 88 (Ventura Co., Cala.); *Ridgw. Manual N. Amer. B.* p. 34 (1887); *Blake, Auk*, 1887, p. 329 (Sta. Cruz I., Cala.).

Adelarus heermanni, *Bruch, J. f. O.* 1853, p. 107; *id. op. cit.* 1855, p. 279; *Bp. C. R.* xxxviii. p. 662 (1854: California).

Leucophæus heermanni, *Bp. Naum.* 1854, p. 211; *id. Rev. et Mag. Zool.* 1855, p. 21.

Blasipus heermanni, *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 211 (1857); *Baird, Cass., & Lawr. B. N. Amer.* p. 848 (1858); *Baird, Cat. N. Amer. B.* no. 666 (1859); *Coues, Ibis*, 1864, p. 388 (Chiapam); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 317 (1874: Mazatlan); *Ridgw. Rep. Survey 40th Par.* p. 636 (1877).

Larus belcheri (*nec Vigors*), *Sclater, P. Z. S.* 1859, p. 237 (Vancouver I.); *Schl. Mus. P.-Bas*, Lari, p. 9 (1863); *Coues, Key N. Amer. B.* p. 314 (1872: California).

Blasipus belcheri (part.), *Blasius* (*nec Vigors*), *J. f. O.* 1865, p. 378.

Larus (Blasipus) heermanni, *Coues, B. N.-West*, p. 641 (1874); *Streets, Bull. U.S. Nat. Mus.* vii. p. 26 (1877: California).

Epitelolarus heermanni, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 359 (1890).

Adult in breeding-plumage. Stouter, with a stronger bill, but superficially not unlike the preceding species. Head and upper part of the neck white; lower neck grey, passing into a slate-colour which deepens on the mantle and still more on the wings; the long inner secondaries edged with white or pale grey, the principal secondaries with blackish centres and greyish-white edges (less pure than in *L. modestus*); the primaries nearly black, the five inner ones tipped with greyish white; tail-coverts grey; rectrices black with broad white tips; under surface vinaceous grey, darkening on the upper breast; under wing lead-colour: bill bright red, often tipped with black: tarsi and toes black, much coarser than in *L. modestus*. Total length about 17 inches, culmen 2, wing 13·75, tail 5·25, tarsus 2, middle toe with claw 2.

The female appears to be a trifle smaller, with a weaker bill than the male.

Adult in winter. Similar, but the head and upper neck streaked with greyish brown, giving the appearance of an incomplete hood, the chin alone being pure white; bill paler red, with more black terminally.

Immature (about 16 months old). Darker, and the wings browner, the secondaries with very little pale colour at the tips and the tail-

feathers almost uniform blackish brown; under surface brownish, with the grey beginning to show through.

Young. Similar, but more decidedly brown in tint; the feathers of the wing-coverts and secondaries tipped with buffish.

Hab. Pacific coasts of North America, from Vancouver Island to Lower California and Mazatlan (breeding); in winter as far south as Chiapam, Guatemala. Not found far from salt water. Breeds on rocky islands.

a. Vix ad. st.	Vancouver Island.	J. K. Lord, Esq. [C.].
b, c. Ad.; *d.* Imm. sk.	Vancouver Island.	J. K. Lord, Esq. [C.].
e. Juv. sk.	Salt Spring Isl., Vancouver Isl.	Dr. Lyall [P.].
f. ♀ imm. sk.	Fort Rupert, N. of Vancouver Isl., Oct. (*Hepburn*).	H. Saunders Coll.
g. ♀ vix ad. sk.	Esquimalt, S. of Vancouver Isl., Oct. (*Gervase Mathew, R.N.*).	H. Saunders Coll.
h. ♀ ad. sk.	San Francisco Bay, Dec. (*Henshaw*).	Salvin-Godman Coll.
i. Juv. sk.	San Francisco Bay, Oct. (*Dr. O. Finsch*).	H. Saunders Coll.
k. ♀ vix ad. sk.	Farallones, San Francisco, April (*Hepburn*).	H. Saunders Coll.
l. ♂ ad. sk.	Farallones, San Francisco, May (*W. H. Collins*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Santa Barbara, California, June (*H. W. Henshaw*).	Salvin-Godman Coll.
n, o. ♂ ♀ ad. sk.	Santa Barbara, California, Nov. (*H. W. H.*).	Salvin-Godman Coll.
p. ♂ ad. sk.	Santa Barbara, California, June (*H. W. H.*).	H. Saunders Coll.
q, r. ♀ vix ad. sk.	Ventura, California, Nov. (*H. W. H.*).	Salvin-Godman Coll.
s. ♂ juv. sk.	San Jose, Guatemala, Jan. (*O. S.*).	Salvin-Godman Coll.
t. ♂ juv. sk.	Chiapam, Guatemala, Jan. (*O. S.*).	Salvin-Godman Coll.

19. Larus belcheri.

Larus belcheri, *Vigors, Zool. Journ.* iv. p. 358 (1829); *id. Zool. Beechey's Voy.* '*Blossom*,' p. 39 (1839); *Gray, Gen. B.* iii. p. 654 (1846); *Schleg. Mus. P.-Bas*, Lari, p. 9 (1863: Peru, excl. syn.); *Scl. & Salv. P. Z. S.* 1871, p. 575; *iid. Nomencl. Av. Neotrop.* p. 148 (1873); *Saunders, P. Z. S.* 1878, p. 182 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 396 (1878: distribution); *id. P. Z. S.* 1882, p. 526 (Peru & Chile); *Taczan. Orn. Pérou*, iii. p. 448 (1886); *MacFarlane, Ibis*, 1887, p. 205 (Callao Bay); *Oustalet, Miss. Sc. Cap Horn*, vi. (1891) p. 309; *Berlepsch & Stolzm. P. Z. S.* 1892, p. 400 (Peru).

Adelarus belcheri, *Bruch, J. f. O.* 1853, p. 107; *id. op. cit.* 1855, p. 279; *Bp. Naum.* 1854, p. 212.

Larus melanurus (*nec Temm.*), *Licht. Nomencl. Av.* p. 99 (1854: Peru).

Leucophæus belcheri, *Bp. C. R.* xlii. p. 771 (1856); *id. Consp. Av.* ii. p. 232 (1857).

Larus fuliginosus (*nec Gould*), *Cassin, U.S. Expl. Exp., Orn.* p. 378 (1858: Cape Horn to Callao).

Larus frobeenii, *Phil. et Landb. Wiegm. Arch.* 1861, p. 292; *vid. An. Univ. Chile*, xxxi. p. 288.

Adult in breeding-plumage. Head, upper neck, and under surface white, with a very faint tinge of grey round the lower neck and a deeper grey tint at the junction with the mantle which is sooty black; wings rather browner black; scapulars and secondaries broadly tipped with white, the latter making a very conspicuous alar bar; primaries sooty black, the five upper ones tipped with greyish white; upper tail-coverts white; rectrices chiefly black, but tipped with white, irregularly marked with white on their basal portions (concealed by the coverts), and white along the entire outer web of the outermost pair; under wing-coverts grey: bill stout, chiefly yellow, but red in front of the angle and often with a blackish mark or zone; iris brown; tarsi and toes rather coarse, yellow, with brighter webs and soles. Total length 20 inches, culmen 2·3, wing 14·5, tail 6·3, tarsus 2·4, middle toe with claw 2·25.

The male is probably a trifle more robust than the female.

Immature. Like the above, except that the head and neck are thickly covered with dark brown streaks which become confluent on the hind neck and form a fairly-defined hood; some dark brown markings on the upper wing-coverts; dark zone on the bill more strongly marked.

Young. Darker than the above on the head and neck; the upper surface chiefly greyish brown, but the feathers have pale tips, which give a mottled appearance; tail-coverts with brownish central streaks; rectrices with less white; under tail-coverts white; abdomen and breast brown, much as the mantle: bill with more black, and paler yellow at the base.

Hab. Coasts of Chile and of Peru, up to Callao, 12° S. lat.

a. Imm. sk.	Coquimbo, Chile, Nov. (*Admiral A. H. Markham*).	H. Saunders Coll.
b. Juv. sk.	Iquique, Prov. Tarapacá (*S. F. Rowland*).	H. Saunders Coll.
c. Juv. sk.	Mollendo, Peru, Sept. (*Commr. MacFarlane*).	H. Saunders Coll.
d, *e*. ♀ ad. et juv. st.	Islay, Peru (*H. Whitely*).	Purchased.
f. ♀ imm. sk.	Islay, Peru, May (*H. W.*).	Salvin-Godman Coll.
g. Juv. sk.	Islay, Peru (*H. W.*).	Tweeddale Coll.
h. Ad. sk.	San Lorenzo I., Callao Bay (*Admiral Markham*).	H. Saunders Coll.
i. Juv. sk.	Callao Bay, Aug. (*Admiral Markham*).	H. Saunders Coll.
k. Imm. sk.	Callao Bay (*R. Jump*).	H. Saunders Coll.

20. Larus crassirostris.

Larus crassirostris, *Vieill. N. Dict. d'Hist. Nat.* xxi. p. 508 (1818, *ex Krusenstern*) (Nagasaki, Japan); *id. Enc. Méth.* i. p. 346 (1820); *Gray, Gen. B.* iii. p. 654 (1846); *Swinh. Ibis*, 1863, p. 428 (Formosa); *id. P. Z. S.* 1863, p. 326 (China); *Schleg. Mus. P.-Bas*, Lari, p. 8 (1863); *Gray, Hand-l. B.* iii. p. 113, no. 10177 (1871); *Swinh. P. Z. S.* 1871, p. 421; *id. Ibis*, 1874, p. 164 (Hakodadi);

id. op. cit. 1875, p. 138 (Chefoo); *David & Oust. Ois. Chine*, p. 519 (1877); *Saunders, P. Z. S.* 1878, p. 183 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 396 (1878: distribution); *Tacz. Bull. Soc. Zool. Fr.* 1885, p. 477 (Vladivostok); *Gigl. & Salvad. P. Z. S.* 1887, p. 593 (Corea); *Salvad. & Gigl. Mem. Accad. Tor.* xxxix. pp. 120, 133, 141 (1889); *Nikolski, Ostrov. Sakhalin i Fauna*, p. 271 (1889: Saghalien I.); *Seebohm, B. Japan. Emp.* p. 293 (1890); *id. Ibis*, 1892, p. 96 (Tsu-sima Is., Japan); *Campbell, t. c.* p. 246 (Corea); *De la Touche, t. c.* p. 501 (Foochow, &c.); *Taczan. Mém. Acad. St. Pétersb.* (7) xxxix. p. 1037 (1893: E. Siberia).

Larus melanurus, *Temm. Pl. Col.* livr. 77, pl. 459 (1828); *Temm. & Schleg. Faun. Japon., Av.* p. 132, pl. 88 (1850); *Cass. Perry's U.S. Expl. Exped.* p. 232 (1858: Hakodadi); *Swinh. Ibis*, 1860, p. 133 (Amoy); *id. op. cit.* 1861, pp. 261, 345 (N. China); *Blakist. op. cit.* 1862, pp. 311, 332 (Hakodadi); *Radde, Reis. Sibir., Vög.* p. 386 (1863); *Whiteley, Ibis*, 1867, p. 210 (N. Japan); *Swinh. P. Z. S.* 1870, p. 603 (descr. soft parts); *Tacz. Bull. Soc. Zool. France*, 1876, p. 264 (Abrek Bay); *Bolau, J. f. O.* 1882, p. 343 (Askold); *Styan, Ibis*, 1891, p. 508 (Lower Yangtse).

Adelarus melanurus, *Bruch, J. f. O.* 1853, p. 107; *id. op. cit.* 1855, p. 279.

Blasipus crassirostris, *Bp. Naum.* 1854, p. 211; *id. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 212 (1857); *Blasius, J. f. O.* 1865, p. 378 (revision).

Larus fuscus (*nec Linn.*), *Pelz. Verh. z.-b. Ges. Wien*, 1873, p. 100 (Japan).

Larus belcheri, *Pelz. Verh. z.-b. Ges. Wien*, 1873, p. 100 (Japan).

Blacipus crassirostris, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890: Japan).

Adult male in breeding-plumage. Head, neck, tail-coverts, and entire under surface white; mantle and wings slate-grey, scapulars edged with white; secondaries very broadly edged with white; the five outer primaries blackish, with white tips which increase in size ascendingly, edges of inner webs rather paler, inclining to grey; upper primaries chiefly slate-grey, with broad white tips and white margins to the inner webs; rectrices white, tinged with pale grey on the basal half, followed by a black band about 2 inches wide, extending more or less over all except the outer pair, which are white, as are the tips of all; under wing-coverts white: bill greenish yellow to the angle, which is red like the tip, with a black zone intervening: "iris pale straw-yellow; eye-rim vermilion" (*Swinhoe*); tarsi and toes yellow, with a greenish tinge. Total length 19 inches, culmen 2·4, wing 15, tail 6, tarsus 2, middle toe with claw 1·9.

The *female* is a trifle smaller or less robust.

In some adults, possibly less mature than the above, only the outer web of the outermost tail-feather is white, the inner web having a black subterminal band; but the excess of white in the bird called "mature" may very well be owing to the disappearance of black consequent upon the age of the feather.

Nearly adult in winter plumage. Similar, but with a little greyish brown on the head and nape; the basal portion of the bill greener. I do not think that the fully adult undergoes any seasonal alteration.

Young. Upper and under surfaces chiefly brown, lightest on the forehead and throat and darkest on the nape and upper breast; feathers of the mantle and wing-coverts with buff margins which gradually wear off; quills and rectrices dark brown, the latter tipped with dull white; abdomen whitish; flanks, breast, and under wing somewhat pale brown: bill ochre-brown, with black tip; tarsi and toes yellowish brown.

In a more advanced stage and after the first important moult, the brown of the upper parts gradually gives place to grey, the outer primaries are blacker, while the upper ones show distinctly white tips; the rectrices brownish black, with conspicuous whitish tips; the under surface dirty white, browner on the flanks and neck.

Immature. Head and underparts white, as in the adult; mantle slate-grey, with some brown on the wings; secondaries with whitish tips and margins; tail-feathers white at their bases, and the outer web of the outer pair iron-grey, inclining to white.

Hab. Coast of Eastern Asia, from the Island of Saghalien southward, through Japanese and Chinese waters to about 22° N. lat.

a–c. Juv. sk.	Amoy, Jan.–March (*R. Swinhoe*).	H. Saunders Coll.
d–f. Ad. et juv. sk.	Amoy, Dec. & March (*R. S.*).	H. Seebohm Coll.
g. ♀ juv. sk.	Amoy, Jan. (*J. A. Budding*).	Salvin-Godman Coll.
h. Juv. sk.	Formosa (*Verreaux*).	H. Saunders Coll.
i–l. ♂ ♀ ad. sk.	Chefoo, July (*R. Swinhoe*).	H. Saunders Coll.
m. Imm. sk.	Chefoo, July (*R. S.*).	H. Seebohm Coll.
n. Juv. sk.	Chefoo, Oct. (*G. Stephen*).	H. Saunders Coll.
o. ♂ ad. sk.	Taalienwan, June (*R. Swinhoe*).	H. Saunders Coll.
p. Ad. sk.	Corea.	C. W. Campbell, Esq. [P.].
q. ♀ ad. sk.	Chemulpo, Corea, Aug.	C. W. Campbell, Esq. [P.].
r, s. ♂ ♀ ad. sk.	Tsu-shima Is., Krusenstern Channel, Feb. (*A. Holst*).	Seebohm Coll.
t. Ad. sk.	Hamilton Island.	A. G. Wilday, Esq. [C.].
u–w. ♂ ♀ ad. et juv. sk.	Hamilton Island (Port Hamilton), Sept., Dec. (*G. Stephen*).	H. Saunders Coll.
x–z. Ad. st.	Japan.	Purchased.
a'. ♀ ad. sk.	Japan.	Salvin-Godman Coll.
b'. ♂ ad. sk.	Japan, Jan. (*Adml. St. John*).	H. Saunders Coll.
c'. ♂ juv. sk.	Nagasaki, S. Japan, March.	F. Ringer, Esq. [P.].
d', e'. Ad. sk.	Kami-simu, S. Japan, June, breeding (*Adml. St. John*).	H. Saunders Coll.
f', g'. ♂ ad. et juv. sk.	Yedo Bay, Jan. (*Adml. St. John*) (excrescence on bill of ad.).	H. Saunders Coll.
h'. Imm. sk.	Yokohama (*H. Pryer*).	H. Seebohm Coll.
i'. Imm. sk.	Yokohama (*H. P.*).	H. Saunders Coll.
k'–m'. Ad., imm., et juv. sk.	Hakodadi, N. Japan (*H. Whiteley*).	H. Saunders Coll.
n'. ♀ ad. sk.	Hakodadi, N. Japan, March (*H. W.*).	Tweeddale Coll.
o'. Ad. sk.	Hakodadi (*Capt. Blakiston*).	H. Seebohm Coll.

21. Larus gelastes.

Larus cinerarius (*nec Linn.*) (partim), *Pallas, Zoogr. Rosso-Asiat.* p. 326 (1811: as regards Black and Azoff Seas only).

Larus gelastes, *Thienem. Fortpflanz. Vög. Eur.* pt. v. p. 22 (1838: *ex Licht.*, type in Berlin Mus.); *Keys. & Blas. Wirb. Eur.* p. xcv & p. 242 (1840); *Schleg. Rev. Crit.* p. cxxvii (1844); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 318 (1849); *Heugl. Syst. Uebers.* p. 69 (1856: Lower Egypt); *Hartl. Orn. W.-Afr.* p. 252 (1857: Senegal); *Linderm. Vög. Griechenl.* p. 178 (1860); *Heugl. in Peterm. Mitth.* 1861, p. 29 (Gulf of Suez); *Tristram, Ibis*, 1862, p. 279 (Jaffa); *Wright, Ibis*, 1864, p. 151 (Malta); *Salvad. Ucc. Sard.* p. 126 (1864); *Degl. & Gerbe, Orn. Eur.* ii. p. 422 (1867); *Doderl. Avif. Sicil.* p. 236 (1869); *Wyatt, Ibis*, 1870, p. 9 & p. 18 (Tor, Sinai Peninsula); *Elwes & Buckley, t. c.* p. 337 (Turkey); *Saunders, Ibis*, 1871, p. 400 (S.W. Spain); *Shelley, B. Egypt*, p. 306 (1872); *Heugl. Orn. N.O.-Afr.* ii. pt. 2, p. 1412 (1873); *Brooke, Ibis*, 1873, p. 347 (Sardinia); *Irby, Orn. Strs. Gibr.* p. 212 (1875); *Blanf. East. Persia*, ii. p. 291 (1876: Mekran coast); *Bree, B. Eur.* 2nd ed. v. p. 72 (1876); *Saunders, Bull. Soc. Zool. Fr.* 1877, p. 204 (S.W. Spain, breeding); *Taylor, Ibis*, 1878, p. 373 (Port Said); *Saunders, P. Z. S.* 1878, p. 191 (revision Larinæ); *Dresser, B. Eur.* viii. p. 389, pl. 601. fig. 2 (1878); *Irby, Ibis*, 1879, p. 346 (Guadalquivir, breeding); *Hume, Str. F.* viii. p. 115 (1879: List); *Chapman, Ibis*, 1884, p. 86 (S.W. Spain, breeding); *Rochebr. Faun. Sénég., Ois.* p. 335 (1884: Cape Verde); *Tristram, Faun. & Flor. Palest.* p. 137 (1884); *Lilford, Ibis*, 1889, p. 349 (Makri, Asia Minor); *Sharpe, Ibis*, 1891, p. 115 (Fao, breeding); *Chapman, Wild Spain*, p. 90 (1893: breeding); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 299 (1895).

Larus genei, *Brème, Rev. Zool.* 1839, p. 321 (Sardinia).

Larus leucocephalus, *Boissonneau in Natterer's Mündl. Mittheil.*, fide *Keys. u Blas. Wirb. Eur.* p. xcv (1840).

Larus tenuirostris, *Temm. Man. d'Orn.* ed. 2, pt. iv. p. 478 (1840); *id. Werner's Atlas, Palmipèdes*, pl. 26; *Crespon, Orn. Gard*, p. 489 (1840); *Schinz, Eur. Faun.* p. 381 (1840); *Crespon, Faune Mérid.* ii. p. 126 (1844: Camargue, breeding); *Bree, B. Eur.* iv. p. 98, cum fig. (1866); *Seebohm, Ibis*, 1882, p. 230 (Caspian, breeding); *Alléon, Ornis*, 1886, p. 423 (Dobrudscha, breeding).

Xema lambruschinii, *Bp. Icon. Faun. Ital., Ucc.* p. 135 & p. 136*, pl. 45 (1840: cf. *Salvad. Ibis*, 1888, p. 323); *id. Cat. Ucc. Eur.* p. 78 (1842); *Jaub. & B.-Lapomm. Rich. Orn. Midi Fr.* p. 394 (1859); *Fritsch, Vög. Eur.* p. 468 (1870).

Xema gelastes, *Boie, Isis*, 1844, p. 192; *Rüpp. Syst. Uebers.* p. 139 (1845: Cairo).

Xema genei, *Boie, Isis*, 1844, p. 192.

Gavia gelastes, *Bruch, J. f. O.* 1853, p. 102; *id. op. cit.* 1855, p. 286; *Brehm, Naum.* 1855, p. 294; *id. Vogelf.* p. 340 (1855); *A. E. Brehm, Reis. Habesch*, p. 228 (1863).

Chroicocephalus gelastes, *Licht. Nomencl. Av.* p. 98 (1854); *Radde, Orn. Cauc.* p. 483 (1884); *Radde & Walter, Ornis*, 1889, p. 126 (Transcaspia).

Larus columbinus, *Golowatschow, Bull. Soc. Moscou*, 1854, i. p. 435.

Gelastes rubriventris, *Bp. Naum.* 1854, p. 216.

Gelastes lambruschini, *Bp. Cat. Parzudaki*, p. 11 (1855); *id. C. R.* xlii. p. 771 (1856); *id. Consp. Av.* ii. p. 227 (1857); *Loche, Expl.*

Sci. Algér., Ois. ii. p. 187 (1867); *Hume, Str. F.* 1873, p. 138 (Karachi); *Heine & Reich. Nomencl. Mus. Hein.* p. 359 (1890).

Larus subroseus, *Heugl. Syst. Uebers.* p. 69 (1856: Red Sea); *id. Sitz. Ak. Wiss. Wien*, 1856, p. 321; *id. in Peterm. Mitth.* 1861, p. 29 (cf. *Heugl. Orn. N.O.-Afr.* ii. Bd. 2, p. 1412).

Larus brehmi, *Heugl. Syst. Uebers.* p. 69 (1856: Red Sea); *id. Sitz. Ak. Wiss. Wien*, 1856, p. 321; *id. in Peterm. Mitth.* 1861, p. 29 (Gulf of Suez: cf. *Heugl. Orn. N.O.-Afr.* ut supra).

Gelastes columbinus, *Bp. Consp. Av.* ii. p. 227 (1857: Caspian); *Olphe-Gall. Orn. Eur. Occid.* livr. x. p. 90 (1886).

Gelastes leucocephalus, *Bp. Consp. Av.* ii. p. 227 (1857).

Larus lambruschini, *Schleg. Mus. P.-Bas*, Lari, p. 28 (1863); *Hume, Str. Feath.* i. p. 274 (1873).

Lambruschinia gelastes, *Salvad. Ucc. Sard.* p. 128 (1864: type of genus).

Gelastes tenuirostris, *Taylor, Ibis*, 1867, p. 72 (Keneh, Upper Egypt).

Gelastes genei, *Salvad. Faun. Ital., Ucc.* p. 290 (1872); *Giglioli, Ibis*, 1881, p. 219 (Sardinia and Sicily); *id. Avif. Ital.* p. 425 (1886); *id.* i. *Resoc. Av. Ital.* p. 642 (1889); *id.* ii. *Resoc.* p. 652 (1890: breeds in Sardinia); *Salvad. Ucc. Ital.* p. 285 (1887).

Larus arabicus, *Hempr. & Ehrenb., Saunders, P. Z. S.* 1878, p. 193, note (Arabia: type in Berlin Mus.).

Gelastes gelastes, *Brusina, Orn. Croatica*, p. 94 (1889).

Adult in breeding-plumage. Head, neck, tail, and under surface white, all except the head being suffused with a beautiful roseate or salmon-pink tint; mantle pearl-grey, wing-coverts a shade darker; secondaries grey to their tips, without any white edges; outermost primary white, except the outer web, the tip, and the narrow extreme edge of the inner web, which are black; 2nd quill white on both webs, with a broader black inner border; 3rd similar, with wider inner border; 4th wider black on the inner web, passing into grey near the shaft; 4th and 5th quills grey on both webs, and tipped with white, so that the black now forms a subterminal band; upper quills grey; under wing-coverts and axillaries grey: bill crimson; "iris white" (*E. C. Taylor*); tarsi and toes coral-red. Total length 15·5 to 16 inches, culmen 2·25, wing 12·25, tail 5, tarsus 2, middle toe with claw 1·8. The male is a mere trifle larger than the female.

Immature. Similar to the above, but the dark markings on the primaries have a browner tint, and narrow lines of black run up from the tips along the outer webs of the 2nd, 3rd, and 4th quills, while there is more brown in some of the middle primaries.

Young. Similar, but without the rose-colour; a little greyish in front of the eye and on the auriculars; some brown feathers on the upper wing-coverts and long secondaries; more dark brown on the outer primaries (*see ante*, p. 232), and a narrow terminal or subterminal band to the rectrices: bill, tarsi, and toes yellow.

In its wing-pattern this species decidedly resembles *L. ridibundus*, and is not unlike it in winter plumage, though larger. *L. gelastes* is, however, a frequenter of sea or salt water, and nests

on sand-banks. The eggs much resemble those of some of the large Terns: *e. g. S. cantiaca, S. berylii*, &c.

Larus gelastes, juv.

Hab. South-western Europe and West Coast of Africa, perhaps as far south as Senegambia; Mediterranean, Black, Azoff, and Caspian Seas; Red Sea to Jeddah; Mesopotamia, Persian Gulf, Mekran Coast to Karachi.

a. ♂ ad. sk.	Gulf of Corinth, Nov. (*Commr. MacFarlane*).	H. Saunders Coll.
b. ♀ ad. sk.	Western Turkey, June (*Schlüter*).	H. Saunders Coll.
c. Juv. sk.	"South Russia."	H. Saunders Coll.
d–f. ♂ ♀ ad. sk.	Knasib, Black Sea, May–June (*Cullen*).	H. Saunders Coll.
g. ♂ imm. sk.	Port Said, Egypt (*Schlüter*).	H. Saunders Coll.
h. ♀ ad. sk.	Jeddah, March 13 (*Zohrab*).	Shelley Coll.
i, k. ♂ ♀ juv. sk.	Near Babylon, River Tigris (*Commr. Jones*).	India Museum [P.].
l, m. ♂ ad.; *n, o.* Juv.; *p.* Vix ad. sk.	Fao, Persian Gulf, Sept.–Oct.	W. D. Cumming, Esq. [P.].
q. ♀ ad. sk.	Gwader, Mekran Coast, Feb.	Hume Coll.
r. ♂ ad. sk.	Ras Malán, Mekran Coast, Nov.	W. T. Blanford, Esq. [C.].
s–c'. ♂ ♀ ad.; ♀ vix ad.; ♂ ♀ imm. sk.	Karachi, Sind, Feb. (*A. O. Hume*).	Hume Coll.
d'–k'. ♂ ♀ ad. et ♂ imm. sk.	Karachi, Sind, March, April, May (*Col. E. A. Butler*).	Hume Coll.

22. Larus bulleri.

Gavia pomare, *Bruch, J. f. O.* 1855, p. 285 (not of 1853, which is *L. novæ-hollandiæ*).

Bruchigavia melanorhynchus, *Buller, Ibis*, 1869, p. 43 (*nec* L. melanorhynchus, *Temm.*).

Larus (Bruchigavia) melanorhynchus, *Finsch, Ibis*, 1869, p. 381; *Travers, Tr. N. Z. Inst.* 1871, p. 209.

Larus melanorhynchus, *Finsch* (*nec Temm.*), *J. f. O.* 1870, p. 361; *Hutton, Ibis*, 1870, p. 396 (Auckland).

Larus bulleri, *Hutton, Cat. B. N. Zeal.* p. 41 (1871); *Potts, Ibis*, 1872, p. 38 (Canterbury, N. Z.); *Buller, B. N. Zeal.* p. 276, pl. xxviii. hinder fig. (1873); *id. op. cit.* 2nd ed. ii. p. 58, pl. xxix. front fig. (1888); *id. Man. N. Zeal. B.* p. 78, pl. xxxii. (1882); *Hutton, Ibis*, 1874, p. 41; *Saunders, P. Z. S.* 1878, p. 190 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 398 (1878: distribution); *H. O. Forbes, Ibis*, 1893, p. 530 (Chatham Is.).

Larus pomare, *Finsch, J. f. O.* 1872, p. 248; *id. op. cit.* 1874, p. 204; *Sharpe, Voy. Ereb. & Terr., Birds*, App. p. 32 (1875).

Adult male. Head, neck, tail, and the under surface pure white (with an evanescent rosy tint); mantle pearl-grey; tips of the long inner secondaries a shade paler, but no alar bar; outer primary chiefly white, with some black on the outer web and more on the

Larus bulleri, ad.

margin of the inner web; 2nd and 3rd quills similar, but with black subterminal bars (*see cut above*); 4th quill with a little grey on the inner web; 5th and 6th grey on both webs, all with subterminal

bars; remaining quills plain grey; under wing-coverts greyish: bill, tarsi, and toes black, with a reddish tinge; iris white. Total length 14·5 inches, culmen 1·8, wing 11·8, tail 4·8, tarsus 1·65, middle toe with claw 1·5.

In less mature birds the 1st quill has a black subterminal bar, and the black of the inner web extends inwards nearly to the shaft about halfway up.

The *female* is slightly smaller, but otherwise like the male.

Young. Similar, but the feathers of the upper surface slightly tipped and spotted with clove-brown; quills with more dark colour, reaching completely to the shafts on the inner webs of the 1st and 2nd (*see cut below*); tail with the merest trace of a brown bar, which is soon lost: bill yellow, horn-colour anteriorly; tarsi and toes dull yellow.

Larus bulleri, juv.

Fledgling (coll. Hon. W. Rothschild). Feathers of the upper surface edged with warm buff; tail without any decided band, but merely marked with irregular narrow wavy bars on a buff ground on the terminal half of the rectrices (much as in a Common Snipe).

Hab. New Zealand, chiefly on the inland lakes and rivers, but descending the latter to their estuaries and occurring on the coast.

This species appears to be largely insectivorous; its wing-pattern and the tail-pattern of the young are peculiar, and it seems to have no very close allies.

a.	Vix ad. sk.	New Zealand.	Sir W. L. Buller [P.].
b.	♀ ad. sk.	New Zealand (*Boucard*).	H. Saunders Coll.
c.	♀ ad. sk.	Selwyn, N. Z., Sept. (*Haast*).	H. Saunders Coll.
d, e.	♂ ♀ ad. sk.	Waimakiriri, N. Z., Sept.	Christchurch Mus. [E.].

23. Larus novæ-hollandiæ.

Crimson-billed Gull, *Lath. Gen. Hist.* x. p. 145 (1824).

Larus novæ-hollandiæ, *Steph. in Shaw's Gen. Zool.* xiii. pt. i. p. 196 (1826: *ex Latham*); *Gray, Gen. B.* iii. p. 654 (1846: [chiefly]); *id. P. Z. S.* 1859, p. 166 (I. of Pines); *Verr. et Des Murs, Rev. Zool.* 1860, p. 441; *Marie, Act. Soc. Linn. Bord.* xxvii. p. 328 (1870: New Caledonia); *Gray, Hand-l. B.* iii. p. 116, no. 11002 (1871); *Saunders, P. Z. S.* 1877, p. 799 (Raine I., N. Austr.); *Layard, Ibis*, 1878, p. 264 (New Caledonia); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *Saunders, P. Z. S.* 1878, p. 185 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 397 (1878: distribution); *id. Voy. 'Challenger,'* ii. (*Birds*), p. 139 (1881: Raine I.); *Sharpe, Rep. Voy. 'Alert,'* p. 27 (1884: Thursday Id.); *Finsch, Vög. Südsee*, p. 40 (1884: Torres Str.); *Legge, Pr. Roy. Soc. Tasman.* 1886, p. 243 (1887); *Schalow, J. f. O.* 1887, p. 244; *Ramsay, Tab. List Austr. B.* p. 22 (1888); *Campbell, Vict. Nat.* iv. p. 137 (1888: King I., Tasmania); *Tristr. Cat. Coll. B.* p. 8 (1889); *Walker, Ibis*, 1892, p. 258 (Adèle I., N.W. Australia); *Wiglesw. Abh. zool. Mus. Dresd.* 1890-91, no. 6, p. 78 (1892).

Larus scopulinus, var. major, *Forst. Descr. Anim.* p. 106 (1844).

Larus jamesoni, *J. Wilson, Ill. Zool.* pl. xxiii. (1831); *Gray, List B. Brit. Mus.*, Anseres, p. 171 (1844: partim); *Hutton, Cat. N. Zeal. B.* p. 141 (1871: as regards Australia only); *Ramsay, P. Z. S.* 1877, p. 347 (Melbourne to Cape York).

Xema jamesonii, *Gould, B. Austr.* vii. pl. xx. (1848); *Sturt, Exp. Centr. Austr.* ii. App. p. 58 (1849); *Reichenb. Vög. Neuholl.* p. 345 (1850).

Gavia jamesonii, *Bruch, J. f. O.* 1853, p. 102; *id. op. cit.* 1855, p. 285.

Gavia andersonii, *Bruch, J. f. O.* 1853, p. 102; *id. op. cit.* 1855, p. 285 ("New Zealand" [?]) *.

Gavia pomarre, *Bruch, J. f. O.* 1853, p. 103, not *Gavia pomare* of 1855, p. 285, which is *L. bulleri* ("Society Islands") †.

Chroicocephalus jamesoni, *Licht. Nomencl. Av.* p. 98 (1854: New Holland).

Gelastes gouldi, *Bp. Naum.* 1854, p. 216 (N. Australia); *id. C. R.* xlii. p. 771 (1856); *Jouan, Mém. Soc. Sci. Nat. Cherb.* ix. p. 239 (1863: New Caledonia).

Gelastes corallinus, *Bp. Naum.* 1854, p. 212 & p. 216 ("South America" [?]) ‡; *id. C. R.* xlii. p. 771 (1856).

Gelastes andersonii, *Bp. Naum.* 1854, p. 212 (*ex Bruch*); *id. C. R.* xlii. p. 771 (1856).

Gavia gouldii, *Bruch, J. f. O.* 1855, p. 285 (N. Australia).

Gelastes jamesoni, *Bp. C. R.* xlii. p. 771 (1856).

Gelastes pomare, *Bp. C. R.* xlii. p. 771 (1856).

Bruchigavia gouldi, *Bp. Consp. Av.* ii. p. 228 (1857); *Gould, Handb. B. Austr.* ii. p. 388 (1865); *Masters, Pr. Linn. Soc. N. S. W.* 1877, p. 62 (Torres Str.).

Bruchigavia pomare, *Bp. Consp. Av.* ii. p. 229 (1857).

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* Type in Mainz Museum examined. † Type in Mainz Museum examined.
‡ Type in Paris Museum examined.

Bruchigavia jamesonii, *Bp. Consp. Av.* ii. p. 228 (1857); *Gould, Handb. B. Austr.* ii. p. 387 (1865).
Bruchigavia corallinus, *Bp. Consp. Av.* ii. p. 228 (1857).
Larus scopulinus major, *Schleg. Mus. P.-Bas,* Lari, p. 29 (1863).
Larus gouldii, *Gray, Hand-l. B.* iii. p. 116, no. 11003 (Torres Str.); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *id. Tab. List Austr. B.* p. 22 (1888).
Bruchigavia longirostris, *Masters, Pr. Linn. Soc. N. S. W.* 1878, p. 113 (King George Sound; juv.).
Larus longirostris, *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *id. Tab. List Austr. B.* p. 22 (1888).
Bruchigavia jamesoni, var. gouldi, *G. F. Mathew, Pr. Linn. Soc. N. S. W.* 1886, p. 256 (Claremont Is.).
Xema novæ-hollandiæ, *North, Nests & Eggs Austr. B.* p. 351 (1890).
Gelastes novæ-hollandiæ, *Heine & Reichen. Nomencl. Mus. Hein.* p. 359 (1890).

Adult male in breeding-plumage. Head, neck, tail, and under surface white, the last with a rosy blush; mantle and secondaries pearl-grey as in the preceding species; 1st and 2nd primaries black at the tip and over the larger portions, with long white mirrors;

Larus novæ-hollandiæ, ad.

3rd quill with a white tip, followed by a black bar, then an irregular white mirror formed by the black of the inner web reaching the shaft, and then a large basal patch of white on both sides of the shaft (*see cut*): in exceptionally mature birds, however, the black does not extend to the shaft, so that the white is continuous to the subterminal band, and moreover the outer quills have minute white tips;

4th and 5th quills chiefly white to grey, with black bars and inner margins; the rest mostly grey like the secondaries, with more or less of a spot or bar on the 6th; under wing-coverts grey: bill crimson-lake; "iris pure silver-white; eyelid coral-red" (*Legge*); tarsi and toes lake-red. Total length about 15 inches, culmen 1·8, wing 11·5 to 12, tail 5 to 5·5, tarsus 1·9 to 2, middle toe with claw 1·7.

In less mature—but undoubtedly breeding—birds the mirrors on the 1st and 2nd quills are smaller, while there is no mirror and little basal white on the 3rd: but there is every intermediate stage between the extremes mentioned.

The *female* appears to be slightly smaller, with a less robust bill; but there is considerable individual variation in size in both sexes, quite irrespective of locality.

Young. Similar, but mottled with brown on the mantle and wings; tail-feathers with a narrow subterminal band of brown; the three outer quills brownish black, with a long irregular patch of white on the 4th from the base of the outer web to about the middle of the inner web; secondaries with ash-brown centres: bill horn-brown, blackish terminally; "iris brown" (*Coppinger*); tarsi and toes "grey" (*Coppinger*), drying brown.

Immature. Similar, but the mantle nearly unspotted grey; a large proportion of white on the primaries, beginning at the shafts; the brown band on the tail confined to the inner rectrices.

Nestling. Mottled brown above, the sprouting feathers with dark centres and broad buff edges; under surface white.

Hab. Coasts of Australia (except the western side) and Tasmania; New Caledonia; perhaps the Fiji group; ascribed to the Society Islands by French writers [?].

a. Ad. sk.	New Caledonia (*J. Macgillivray*).	H. Saunders Coll.
b. ♂ imm. sk.	Ansevata, New Caledonia, Sept. 1877 (*E. L. Layard*).	H. Saunders Coll.
c. Ad. st.	Australia.	Gould Coll.
d. Pull. sk.	Channel Rock, Torres Strait, June (*Dr. Coppinger*).	Voy. H.M.S. 'Alert' [P.].
e, f. ♂ ♀ ad.; *g.* Juv. sk.	Thursday I., Torres Str., Aug.	Voy. H.M.S. 'Alert' [P.].
h. ♀ vix ad. sk.	Howick I., Torres Str.	J. R. Elsey, Esq. [P.].
i–m. Ad. sk.	Cape York (*Cockerell*).	Salvin-Godman Coll.
n. Ad.; *o.* ♂ imm. sk.	Raine Isl., Torres Str.	Gould Coll.
p, q. ♂ ♀ ad. sk.	Raine Isl., Torres Str.	Voy. H.M.S. 'Challenger.'
r. Ad. sk.	Cape Upstart, Queensland.	J. B. Jukes, Esq. [P.].
s, t. Vix ad. et juv. sk.	Port Mackay, Queensland (*Bowen*).	H. Saunders Coll.
u. Imm. sk.	Richmond River, Queensland.	H. Saunders Coll.
v. Ad. sk.	New South Wales.	Australian Mus. [E.].
w. Ad. sk.; *x.* Imm. st.	Port Jackson, Queensland.	Australian Mus. [E.].

y. Ad. sk.	Yarra, Victoria.	Gould Coll.
z. Ad. sk.	South Australia.	Sir G. Grey [P.].
a'. Skeleton.	Tasmania.	Purchased.
b'. Skull.	Australia.	Voy. H.M.S. 'Rattlesnake' [P.].

24. Larus scopulinus.

Larus scopulinus, *Gray, in Dieffenb. N. Zeal.* ii. App. p. 200 (1843; *ex Forst. MS.*); *Forst. Descr. Anim.* p. 106 & p. 257 (1844: New Zealand); *Reichenb. Natat., Novit.* xii. tab. cclxxv. figs. 2282 & 2283; *Schleg. Mus. P.-Bas,* Lari, p. 28 (1863); *Hutton, Ibis,* 1870, p. 366 (Auckland); *Finsch, J. f. O.* 1870, p. 360; *Hutton, Cat. New Zeal. B.* p. 40 (1871); *id. Ibis,* 1872, p. 248 (Chatham Is.); *Buller, B. N. Zeal.* p. 273 (1873); *Hutton, Ibis,* 1874, p. 41 (plumage); *Saunders, P. Z. S.* 1878, p. 188 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 397 (1878: distribution); *Reischek, Tr. N. Z. Inst.* 1886, p. 183 (Little Barrier Reef); *Buller, 2nd ed. B. N. Zeal.* ii. p. 55, pl. xxix. hinder fig. (1888); *H. O. Forbes, Ibis,* 1893, p. 529 (Chatham Is.).

Larus novæ hollandiæ, *Gray* (*nec Steph.*), *Voy. Ereb. & Terr., Birds,* p. 18 (1844: New Zealand); *Finsch, J. f. O.* 1872, p. 241; *id. op. cit.* 1874, p. 203; *Sharpe, Voy. Ereb. & Terr., Birds,* App. p. 32 (1875); *Buller, 2nd ed. B. N. Zeal.* ii. p. 61 (1888: juv.).

Larus jamesoni, *Gray, List B. Brit. Mus.,* Anseres, p. 171 (1844: partim; as regards Auckland Is.); *Pelz. Reis. Novara, Vög.* p. 151 (1865: New Zealand).

Lestris scopulinus, *Ellman, Zool.* 1861, p. 7472.

Larus andersonii, *Gray* (*nec Bruch*), *Hand-l. B.* iii. p. 116, no. 11004 (1871: New Zealand).

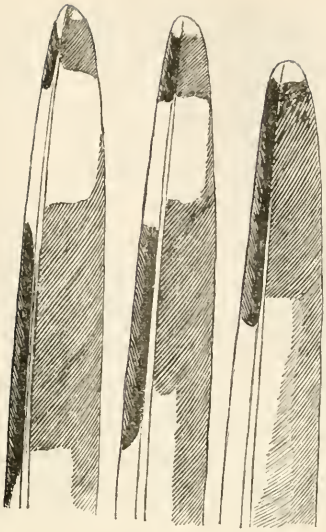
Adult. Smaller than the preceding species but otherwise very similar, except as regards the pattern of the outer primaries. These have angular-edged mirrors on 1st and 2nd quills, while on 3rd there is no mirror, but the basal half is white (*see cut,* p. 239): "iris silvery white" (*Buller*); bill, eyelids, tarsi, and toes crimson. Total length about 14·5 inches, culmen 1·7, wing 11, tail 5, tarsus 1·75, middle toe with claw 1·75.

The male is a trifle larger and more robust than the female.

Young and Immature. As in the former species, except that two small elongated white patches or incipient mirrors make their appearance in the two outer pairs of primaries (*see cut,* p. 239), while the bird has still a spotted back and a banded tail.

Hab. New Zealand, Chatham and Auckland Islands. Examples from the last have unusually short stout bills.

a. Ad. sk.	New Zealand.	Sir G. Grey [P.].
b. Juv. st.	New Zealand (*Antarctic Exp.*).	The Admiralty [P.].
c. Juv. sk.	New Zealand.	Sir E. Home [P.].
d, e. ♂ ♀ ad.; *f.* Imm. sk.	Auckland Islands, S. of New Zealand (*Antarctic Exp.*).	The Admiralty [P.].
g. ♂ ad. st.	South Island, N. Z.	Capt. Stokes [P.].
h, i. Ad. et imm.; *k, l.* ♂ ♀ ad. sk.	Dunedin, South I., N. Z., March & June.	Hume Coll.
m. Ad. sk.	Otago, South Island, N. Z.	H. Saunders Coll.
n. Imm. sk.	Christchurch, S. I., N. Z. (*Sir J. von Haast*).	H. Saunders Coll.



Larus scopulinus, ad.

Larus scopulinus, juv.

o. Ad. sk.	North Island, autumn (*Dr. O. Finsch*) [figd. P. Z. S. 1878, p. 188].	H. Saunders Coll.
p–u. ♂ ♀ ad. et juv. sk.	Wellington, North Island.	H. Saunders Coll.
v, w. Imm. sk.	Auckland Harbour, North Island, March (*E. L. Layard*).	H. Saunders Coll.

25. Larus hartlaubi.

Gavia hartlaubi, *Bruch, J. f. O.* 1853, p. 102; *id. op. cit.* 1855, p. 286 (Cape of Good Hope) *.
Gelastes hartlaubii, *Bp. Naum.* 1854, p. 216; *id. C. R.* xlii. p. 771; *id. Consp. Av.* ii. p. 227 (1857); *Hartl. Faun. Madag.* p. 85 (1861) †.
? Larus pæocephalus, *Gurney, Ibis*, 1860, p. 221 (Natal Bay).
Larus poiocephalus, *Layard* (*nec Swains.*), *B. S. Afr.* p. 368 (1867).
Larus cirrhocephalus, *Hartl. Orn. Madag.* p. 378 (1877).
Larus ridibundus, *Schl. & Poll. Faune Madag., Ois.* p. 146 (1868) [seen only].
Larus hartlaubi, *Saund. P. Z. S.* 1874, p. 293; *id. op. cit.* 1878, p. 188 (revision Larinæ); *id. Journ. Linn. Soc., Zool.* xiv. p. 398 (1878: distribution); *Sharpe, ed. Layard's B. S. Afr.* p. 698 (1884).

Adult. Smaller than *L. scopulinus*, but otherwise very similar, but the mirrors on the outer primaries are smaller; the 3rd quill has far less white on its basal portion (*see cut*), while on the 4th

1 2 3

Larus hartlaubi.

* Type in Mainz Museum examined.
† Specimen in Paris Museum examined.

the black of the inner web extends nearer to the shaft; the under wing-coverts uniform smoke-grey: bill, tarsi, and toes crimson; iris white, eyelid red. Total length 14 inches, culmen 1·6, wing 10·75, tail 4·75, tarsus 1·7, middle toe with claw 1·5.

Birds which are probably younger have duller bills and feet, with less white in the primaries.

Immature. Like *L. scopulinus*, but the quills of a browner black, with rather less white at the same age.

Hab. South coast of Africa from the Cape of Good Hope to Natal; also Madagascar.

a. Imm. st.	Cape Colony.	Sir A. Smith [P.].
b. Ad. st.	Cape of Good Hope.	J. Gould, Esq.
c. Ad. sk.	Cape of Good Hope.	J. Gould, Esq.
d. Ad. sk.	Cape of Good Hope (*E. L. Layard*).	H. Saunders Coll.
e, *f.* Ad. sk.	Table Bay, Aug. (*E. L. Layard*).	H. Saunders Coll.
g. Ad. sk.	Natal (*Col. H. W. Feilden*).	H. Saunders Coll.

26. Larus marinus.

The Great Black and White Gull, *Albin, Nat. Hist. B.* iii. p. 89, pl. 94 (1740); *Pennant, Brit. Zool.* (fol.) p. 140, pl. l. (1766); *id.* 2nd ed. p. 416 (1788).

Le Goiland noir, *Briss. Orn.* vi. p. 158 (1760).

Larus marinus, *Linn. Syst. Nat.* i. p. 225 (1766); *P. L. S. Müll. S. N.* p. 346 (1773); *Mohr, Island Naturh.* p. 42 (1786); *Fabr. Faun. Grœnl.* p. 102 (1780); *Gm. S. N.* i. p. 598 (1788); *Retzius, F. Suec.* p. 156 (1790); *Bonn. Enc. Méth.* i. p. 84 (1790); *Lath. Ind. Orn.* ii. p. 813 (1790); *Bechst. Naturg. Deutschl.* ii. p. 815 (1791); *Wolf & Meyer, Naturg. Vög. Deutschl.* Heft xx. p. 58, cum tab. (1805); *Meyer & Wolf, Taschenb. Vög. Deutschl.* ii. p. 465 (1810); *Pallas, Zoogr. Rosso-Asiat.* ii. p. 321 (1811: Baltic); *Meyer, Vög. Liv- u. Esthl.* p. 230 (1815); *Meisner & Schinz, Vög. Schweiz*, p. 266 (1815); *Temm. Man. d'Orn.* p. 490 (1815); *Koch, Syst. Baier. Zool.* p. 370 (1816); *Nilss. Orn. Suec.* p. 164 (1817); *Cuvier, Règne An., Ois.* p. 340, *Atlas*, pl. 92 (1817); *E. Sabine, Tr. Linn. Soc.* xii. p. 543 (1818: Baffin B., once); *Temm. Man. d'Orn.* 2nd ed. p. 760 (1820); *Boie, Isis*, 1822, p. 562; *Brehm, Vogelk.* iii. p. 756 (1822); *Licht. Verz. Doubl.* p. 82 (1823: Iceland); *Brehm, Lehrb.* p. 735 (1824); *Macgill. Mem. Wern. Soc.* v. p. 255 (1824); *Audub. B. Amer.* pl. 241 (c. 1826); *Vieill. Faun. Franç., Ois.* p. 392 (1828); *Bp. Ann. Lyc. N. Y.* ii. p. 362 (1828); *Werner, Atlas, Palmipèdes*, pl. 17 (1828); *Fleming, Brit. An.* p. 140 (1828); *Brehm, Vög. Deutschl.* p. 731 (1831); *Selby, Brit. B.* ii. p. 507, pl. xcvii. (1833); *Nuttall, Man. Orn.* ii. p. 308 (1834); *Jenyns, Man. Brit. Vertebr.* p. 278 (1835); *Audub. Orn. Biogr.* iii. p. 305 (1835), and v. p. 636 (1839); *Eyton, Cat. Brit. B.* p. 53 (1836); *Gould, B. Eur.* v. pl. 430 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Audub. Synop.* p. 329 (1839); *Naum. Vög. Deutschl.* x. p. 438, taf. 268, 269 (1840); *Schinz, Europ. Faun.* p. 379 (1840); *Temm. Man. d'Orn.* éd. 2, 4me pte. p. 471 (1840); *Crespon, Orn. Gard*, p. 481 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcvii & p. 245 (1840); *Macgill. Man. Brit. Orn.* pt. ii. p. 244 (1842); *Selys-Longch. Faun. Belg.* p. 154

(1842); *Gray, List B. Brit. Mus.*, Anseres, p. 168 (1844); *Schl. Rev. Crit.* p. cxxiv (1844); *Mühle, Orn. Griechenl.* p. 145 (1844); *Crespon, Faun. Mérid.* ii. p. 123 (1844); *Giraud, B. Long Isl.* p. 361 (1844); *Audub. B. Amer.* 8vo ed. vii. p. 172, pl. 450 (1844); *Rüpp. Syst. Uebers.* p. 139 (1845: Damietta); *Yarr. Brit. B.* 2nd ed. iii. p. 591 (1845); *Gray, Gen. B.* iii. p. 654 (1846); *Hewits. Eggs Brit. B.* ii. p. 447, pl. cxxviii. fig. 1 (1846); *Degl. Orn. Eur.* ii. p. 301 (1849); *Reichenb. Syst. Nat.* tab. v. (1850); *id. Av. Syst. Nat., Longip.* pp. iv, v (1852); *Thomps. B. Irel.* iii. p. 377 (1851); *Kjærb. Danm. Fugle*, p. 324, tab. xlii. (1852); *id. op. cit., Suppl.* tab. xxiii. (1854); *Macgill. Brit. B.* v. p. 526 (1852); *Schl. Vog. Nederl.* p. 596, pls. 343 & 344 (1854); *Bp. Naum.* 1854, p. 211; *Licht. Nomencl. Av.* p. 99 (1854); *Brehm, Naum.* 1855, p. 294; *id. Vogelf.* p. 338 (1855); *Heugl. Syst. Uebers.* p. 69 (1856: Lower Egypt); *Meyer, Brit. B.* vii. p. 159, pl. 310 (1857); *Baird, Cass., & Lawr. B. N. Amer.* p. 844 (1858); *Baird, Cat. N. Amer. B.* no. 660 (1859); *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 389 (1859); *Linderm. Vög. Griechenl.* p. 177 (1860); *Reinh. Ibis*, 1861, p. 16 (Greenland); *Schl. Dier. Nederl. Vogels*, p. 235 (1861); *Schleg. Mus. P.-Bas*, Lari, p. 10 (1863); *Newton in Baring-Gould's Iceland*, p. 418 (1863); *Gray, Cat. Brit. B.* p. 231 (1863); *Salvad. Ucc. Sard.* p. 130 (1864); *Blas. J. f. O.* 1865, p. 379 (critical); *Degl. et Gerbe, Orn. Eur.* ii. p. 413 (1867); *Borggr. Vogelf. Norddeutschl.* p. 143 (1869); *Doderl. Avif. Sicil.* p. 232 (1869); *Droste, Vogelw. Borkum*, p. 353 (1869); *Fritsch, Vög. Eur.* p. 427, tab. 55. fig. 8 (1870); *Saunders, Ibis*, 1871, p. 400 (S.W. Spain); *R. Gray, B. West Scotl.* p. 488 (1871); *G. R. Gray, Hand-l. B.* iii. p. 112 (1871); *Salvad. Faun. Ital., Ucc.* p. 295 (1872); *Godman, Ibis*, 1872, p. 223 (near Canaries); *Harting, Handb. Brit. B.* p. 77 (1872); *Sundev. Sv. Fogl.* pl. 50. fig. 5 (1872); *Sharpe & Dresser, B. Eur.* viii. p. 427, pl. 604 (1872); *Coues, Key N. Amer. B.* p. 312 (1872); *Collett, Forh. Selsk. Christ.* pp. 873, 297 (N. Norway); *Palmén, Finlands Fogl.* p. 601 (1873); *Gould, B. Gt. Brit.* v. pl. 55 (1873); *Marchand, Rev. Zool.* 1873, pl. 12 (nestling); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1379 (1873); *Finsch, Abh. Verh. Brem.* v. p. 364 (1873: S. Greenland); *Coues, B. N.-West*, p. 624 (1874); *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Newton, Arctic Man.* p. 107 (1875: Greenland, 63°–68° N.); *Irby, Orn. Strs. Gibr.* p. 215 (1875); *Seebohm & H-Brown, Ibis*, 1876, p. 452 (Lower Petchora); *Merriam, B. Conn.* pp. 132, 142, & 146 (1877); *Collett, N. Mag. Naturv.* p. 209 (1877: N. Norway); *Reid, Zool.* 1877, p. 489 (Bermuda); *Saunders, P. Z. S.* 1878, p. 179 (revision Larinæ); *Kumi. Bull. U.S. Nat. Mus.* no. 15 p. 99 (1879: Greenland up to 70° N.); *Rodd, B. Cornw.* p. 173 (1880); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Maynard, B. East. N. Amer.* p. 483 (1881: to Florida in winter); *Clarke, Handb. Yorks. Vertebr.* p. 83 (1881); *Giglioli, Ibis*, 1881, p. 221 (Italy, rare); *Coues, Check-l. N. Amer. B.* p. 120 (1882); *Seebohm (Henke), Ibis*, 1882, p. 386 (Kanin Peninsula, breeds); *Brewster, Pr. Bost. Soc. N. H.* xxii. p. 395 (1883: St. Lawr. Gulf); *Ridgw. Cat. B. Fish. Exhib.* p. 30, no. 663 (1883: Labrador); *Irby, Ibis*, 1883, p. 189 (Santander, imm.); *Rochebr. Faun. Sénég., Ois.* p. 333 (1884: Cape Blanco &c.); *Saunders, Ibis*, 1884, p. 39 (S.W. France); *Coues, Key N. Amer. B.* 2nd ed. p. 742 (1884); *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1884: Labrador, breeds); *Baird, Brew., & Ridgw. Water-B. N. Amer.*

ii. p. 225 (1884); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 631 (1884); *Radde, Orn. Cauc.* p. 479 (1884: not on Caspian); *Seebohm, Brit. B.* iii. p. 323 (1885); *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 131 (1885: St. Petersburg); *Homeyer, Ornis*, 1885, p. 80; *Lütken, t. c.* p. 145; *D. Torre & Tsch. t. c.* p. 560 (Hungary); *Albarda, t. c.* p. 629 (Holland); *Gigl. Avif. Ital.* p. 633 (1886); *Gröndal, Ornis*, 1886, p. 370 (Iceland); *Schneider, op. cit.* 1887, p. 551 (Upp. Alsace); *Salvad. Ucc. Ital.* p. 287 (1887); *Tait, Ibis*, 1887, p. 396 (Portugal); *Ridgw. Man. N. Amer. B.* p. 28 (1887); *Booth, Str. F.* iii. cum tabs. (1887); *Hartert, MT. orn. Ver. Wien*, 1887, p. 180 (E. Prussia); *Rhoads, Auk*, 1888, p. 318 (39° N., New Jersey); *H-Brown & Buckl. Faun. Sutherl. &c.* p. 233 (1887); *iid. Faun. Out. Hebr.* p. 148 (1888); *Taczan. Ornis*, 1888, p. 506 (Poland, juv.); *Cooke, B. Migr. Mississippi Vall.* p. 55 (1888); *M. Chamberlain, Auk*, 1889, p. 215 (S. Greenland); *Lilford, Ibis*, 1889, p. 349 (Cyprus); *Riesenth. Wasservög. Mitteleurop.* p. 132 (1889); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 63 (1889); *Saunders, Man. Brit. B.* p. 661 (1889); *Gigl. 1° Resoc. Av. Ital.* p. 648 (1889); *Stevenson & Southw. B. Norfolk*, iii. p. 341 (1890); *Keller, Orn. Carinthiæ*, p. 301 (1890); *Gätke, Vogelw. Helgol.* p. 567 (1891); *Buckl. & H-Br. Faun. Orkney Is.* p. 233 (1891); *Jäckel u. Blas. Vög. Bayerns*, p. 362 (1891); *Fatio & Studer, Cat. Ois. Suisse*, pp. 60, 61 (1892); *Macpherson, Vertebr. Faun. Lakeland*, p. 432 (1892); *H-Br. & Buckl. Faun. Argyll &c.* p. 192 (1892); *D'Urban & Mathew, B. Devon*, p. 380 (1892); *Hartert, Ibis*, 1892, p. 521 (E. Prussia); *Meade-Waldo, Ibis*, 1893, p. 206 (Canaries, rare); *Allen, Auk*, 1893, p. 123 (distribution); *White, t. c.* p. 222 (Mackinac I., Mich.); *Lilford, Col. Figs. Br. B.* pt. xxv. (1893); *A. Dubois, Vertebr. Belg., Ois.* ii. p. 583, pl. 291 (1894): *Pearson & Bidw. Ibis*, 1894, p. 236 (N. Norway); *Mathew, B. Pembrokesh.* p. 105 (1894); *Collett, Nyt Mag. f. Naturv.* Bd. xxxv. p. 309 (1894: Norway); *Ussher, Pr. R. Irish Ac.* (3) iii. p. 410 (1894); *Clarke, Ibis*, 1895, p. 210 (Rhone delta, ad.); *Pears. t. c* pp. 245 & 248 (Iceland).

Larus nævius, *Linn. Syst. Nat.* p. 225 (1766); *Bonn. Enc. Méth.* i. p. 83 (1790).

Larus maculatus, *Bodd. Tab. Pl. Enl.* p. 16 (1783).

Le Goéland à Manteau noir, *Buff. Hist. Nat. Ois.* viii. p. 405, pl. xxxi. (1783).

Le Goéland varié ou Le Grisard, *Buff. Hist. Nat. Ois.* viii. p. 413, pl. xxxiii. (1783).

Black-backed Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 371 (1785); *Bewick, Brit. B.* ii. p. 194 (1821).

Wagel Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 375 (1785).

Le Grisard, *Daubent. Pl. Enl.* pl. 266 (1786).

Le Noir Manteau, *Daubent. Pl. Enl.* pl. 990 (1786).

Larus giganteus, *Benicke, Ann. Wetterau Gesel.* iii. p. 140 (1812: jr.); *Temm. Man. d'Orn.* p. 490, note (1815).

Larus maximus, *Leach, Syst. Cat. Brit. Mus.* p. 40 (1816: *nec O'Reilly*, 1818); *Brehm, Beitr. Vogelk.* iii. p. 741 (1822); *id. Lehrb.* p. 733 (1824); *id. Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 728 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 337 (1855).

Leucus marinus, *Kaup, Natürl. Syst.* p. 86 & p. 196 (1829).

Larus mülleri (*sic*), *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 729 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 337 (1855).

Larus fabricii, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 731 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 337 (1855).

Great Black-backed Gull, *Yarr. Brit. B.* iii. p. 471 (1843).
Dominicanus marinus, *Bruch, J. f. O.* 1853, p. 100; *id. op. cit.* 1855, p. 280; *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 213 (1857); *Loche, Expl. Sci. Algér., Ois.* ii. p. 177 (1867); *Olphe-Gall. Faun. Orn. Eur. Occident.* fasc. x. p. 34 (1886); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 357 (1890).
Larus nigripallus, *C. F. Dubois, Pl. Col. Ois. Belg.* iii. p. 240 (1860).

Adult male in breeding-plumage. Head, neck, tail, and entire underparts white: mantle and upper surface of wings black, of varying shades, but usually with a tinge of slate-colour; the scapulars and all the secondaries with white tips, which form a strongly contrasted alar bar; all the primaries broadly tipped with white; the outermost white for nearly 3 inches, its upper part blackish; the second similar, with a black spot or a narrow subterminal bar, according to age, on the inner web; third quill with an indication of white on the shaft, or even a spot in some Greenland examples, blackish above, next the shaft, with a fairly visible greyish wedge ending in white on the inner web; fourth and fifth quills with more defined grey wedges on the inner webs, and a black subapical bar; remaining quills slate-grey, except the tips: bill yellow, the angle of the genys orange-red; eyelid vermilion; tarsi and toes livid flesh-colour. Total length 28–30 inches, culmen 3, wing 19–20, tail 8, tarsus 3, middle toe with claw 3. The above are the average measurements, but some males exceed these, and have very large heavy bills.

The *female* is smaller and has a less robust beak.

Adult in winter. Like the above, with a few greyish striations on the crown and nape, and, as a rule, less vivid colours on the bill.

Young. Streaked, mottled, and barred with brown on a lighter surface above and below, the markings on the mantle and tail-feathers darkest, with no well-defined band on the latter, though the markings are bold; quills very dark brown with paler or whitish tips: bill dark horn-colour.

Immature. Restricting the term "young" to a bird of two years, at a later stage black feathers appear on the mantle and the white edges to the secondaries are distinct, but the primaries are still without mirrors. Afterwards the primaries have white tips and the fourth, fifth, and sixth exhibit what may almost be called subterminal bars, while the outermost quill shows a subapical mirror of dull white, and the second quill has an ill-defined brownish-white spot; the tail being still slightly mottled. I do not think that the adult plumage is attained before the bird is in its fifth year, and even then the amount of white on the two or three outer primaries continues to increase with age until the state first described is reached.

Nestling. Stone-colour above, with sparse and bold black spots on the head and duller brownish mottlings on the back; underparts buffish white; bill very stout and short, blackish basally, yellowish anteriorly.

Hab. Northern Europe, from the Lower Petchora westward to Iceland, and down to about 50° N. (breeding); in winter to the

Canaries, and along the Mediterranean (rarely) to the Egyptian coast; also on inland waters. Greenland, and also the east coast and the great lakes of North America to Labrador (breeding); in winter to Florida, and, accidentally, in Bermuda.

a, *b*. ♂ ♀ ad, st.	Great Britain (Leadenhall market).	Purchased.
c. Juv. st.	Great Britain.	Purchased.
d. Pull. sk.	Great Britain.	Gould Coll.
e. Ad. sk.; *f*. Juv. st.	Wales.	Col. Montagu [P.].
g. ♀ imm. sk.	Merionethshire, Jan. 16th.	Col. Morris [P.].
h. Pull. st.; *i*. Juv. st.	Scilly Islands and Cornwall.	D. W. Mitchell, Esq. [P.].
k. Imm. sk.	Cornwall (*Vingoe Coll.*).	Purchased.
l. ♂ juv. sk.	Fowey, Aug. (*A. G.*).	Dr. A. Günther [P.].
m. Ad.; *n*. Juv. sk.	Torquay.	C. Coningham, Esq. [P.].
o, *p*. ♀ ad. sk. & juv. sk.	Pagham, Feb. & Sept. 27.	R. B. Sharpe, Esq. [P.].
q. Juv. sk.	Ramsgate, January.	W. Thompson, Esq. [P.].
r, *s*. ♂ ♀ ad. sk.	Cromarty.	W. Ogilvie-Grant, Esq. [C.].
t–*v*. ♂ ♀ ad. sk.	Sutherlandshire, June.	W. Ogilvie-Grant, Esq. [C.].
w–*z*. Imm. sk.	Orkneys, March, April, July, Dec.	J. G. Millais, Esq. [P.].
a', *b'*. ♂ ♀ ad. sk.	Orkneys, June, July (*J. Dunn*).	H. Saunders Coll.
c'. ♂ ad. sk.	Orkneys, January (*J. D.*).	E. Hargitt, Esq. [P.].
d'. Ad. sk.	Bressay, Shetland, Nov. 4th, 1818 (*Voy. 'Alexander'*).	The Admiralty [P.].
e'. Pull. sk.	Helligrar, June 12th.	Salvin-Godman Coll.
f', *g'*. Ad. et juv. sk.	"Europe."	Hume Coll.
h'. Imm. sk.	Havre, May (*V. Pluche*).	H. Seebohm Coll.
i'. ♂ ad. sk.	Heligoland, May (*L. Gätke*) [mark 3rd primary].	H. Seebohm Coll.
k'. Juv. sk.	Hiddensee, Oct. 29th.	H. Saunders Coll.
l'. Ad. sk.	Greenland (*Moeschler*).	H. Saunders Coll.
m'. Ad. sk.	Greenland (*R. Müller*) [very remarkable quills].	H. Saunders Coll.
n'. Ad. sk.	Greenland.	— Moller [C.].
o'. Ad. sk.	Greenland (*Rink*).	Hume Coll.
p'. Juv. sk.	Godhavn, Sept. (*E. Whymper*).	H. Saunders Coll.
q'. Skeleton.	England (*Warwick Coll.*).	Purchased.
r'. Skeleton, mounted.	S. Wales.	Rev. A. Morgan [P.].
s'. Skeleton.	Oresund.	Dr. Günther [P.].
t'–*w'*. Sterna.	England.	Purchased.
x', *y'*. Skulls.	England.	Purchased.

27. Larus dominicanus.

Black-backed Gull (part.), *Lath. Gen. Syn.* iii. pt. 2, p. 372 (1785: as regards the Cape of Good Hope).

Larus marinus, *Lath. Ind. Orn.* ii. p. 814 (1790: as regards C. of G. Hope); *Forster, Descr. Anim.* p. 313 (1844: South Georgian Is.).

Gabiota mayor, *Azara, Apunt.* iii. p. 338 (1802).

Larus dominicanus, *Licht. Verz. Doubl.* p. 82 (1823: Brazil coast); *Neuwied, Beitr. Naturg. Bras.* iv. p. 850 (1833: S. Brazil up to Rio); *Darwin & Gould, Zool. 'Beagle,' Birds*, p. 142 (1841: Argentina); *Fraser, P. Z. S.* 1843, p. 119 (S. Chile); *Gray, Gen. B.* iii. p. 654, pl. clxxx. (1846); *id. Voy. Ereb. & Terr., Birds*, p. 18 (1846: New Zealand); *Hartl. Ind. Azara*, p. 26 (1847); *Gay, Hist. Chile, Zool.* i. p. 480 (1847); *Licht. Nomencl. Av.* p. 99 (1854: Brazil); *Bp. Naum.* 1854, p. 211 (Brazil); *Cassin, U.S. Astron. Exped.* ii. p. 204 (1855: West coast S. Amer.); *id. U.S. Expl. Exped.* p. 377 (1858); *Gould, P. Z. S.* 1859, p. 97 (Falkland Is.); *Sel. P. Z. S.* 1860, p. 390; *Abbott, Ibis*, 1861, p. 165 (Falkland Is.); *Schleg. Mus. P.-Bas*, Lari, p. 12 (1863); *J. H. Blas. J. f. O.* 1865, p. 378 (critical); *Layard, Ibis*, 1867, p. 459 (Crozet Is.); *id. B. S. Afr.* p. 367 (1867); *Scl. & Salv. Ibis*, 1868, p. 189 (Magellan Strs.); *Newton, Ibis*, 1870, p. 503 (egg); *Scl. & Salv. P. Z. S.* 1871, p. 576 (revis. Neotrop.); *Gray, Hand-l. B.* iii. p. 112, no. 10953 (1871); *Hutton, Cat. New Zeal. B.* p. 40 (1871); *id. Ibis*, 1872, p. 248 (Chatham Is.); *Finsch, J.f. O.* 1872, p. 241; *id. op. cit.* 1874, p. 203 (N. Zealand); *Buller, B. New Zeal.* p. 270, pl. 28. fig. 1 (1873); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873); *Sharpe, Voy. Ereb. & Terr., Birds*, App. p. 32 (1875); *Kidder & Coues, Bull. U.S. Nat. Mus.* no. 2, p. 13 (1875: Kerguelen I.); *Durnf. Ibis*, 1877, p. 45 (Chuput); *id. t. c.* p. 201 (La Plata); *id. op. cit.* 1878, p. 68; *id. t. c.* p. 405 (Tombo, Patagonia); *Saunders, P. Z. S.* 1877, p. 799 (Kerguelen I. and Magellan Strs.); *id. op. cit.* 1878, p. 180 (revision); *Sharpe, Phil. Tr.* clxviii. p. 107 (1878: Rep. Tr. Venus, Kerguelen); *Saunders, t. c.* p. 163 (eggs); *id. Rep. Voy. 'Challenger,' Birds*, ii. p. 139 (1880); *Gibson, Ibis*, 1880, p. 163 (Argentina); *Sharpe, P. Z. S.* 1881, p. 17 (Magellan Strs., 'Alert'); *Saunders, P. Z. S.* 1882, p. 400 (Chile & Peru); *Finsch, Vög. Südsee*, p. 45 (1884: Wanganui); *Sharpe, ed. Layard's B. S. Afr.* p. 697 (1884); *Pagenstecher, Ber. Nat. Mus. Hamburg*, 1884, p. 24 (1885: S. Georgian Is.); *Reischek, Tr. N. Z. Inst.* 1886, p. 183 (Lit. Barrier Is.); *Taczan. Orn. Pérou*, iii. p. 447 (1886); *Macfarl. Ibis*, 1887, p. 202 (Chile) & p. 205 (Peru); *Withington, Ibis*, 1888, p. 472 (prov. Buenos Ayres); *Buller, 2nd ed. B. New Zeal.* ii. p. 47 (1888); *Scl. & Hudson, Arg. Orn.* ii. p. 197 (1889); *Neumayer, Deutsch. Exped.* Bd. ii. p. 262 (1890: S. Georgian Is.); *Oustalet, Miss. Sc. Cap Horn*, vi. p. 173 (1891); *Holland, Ibis*, 1892, p. 213 (prov. B. Ayres); *Berl. & Stolzm. P. Z. S.* 1892, p. 400 (Peru); *Forbes, Ibis*, 1893, p. 529 (Chatham Is.); *Scl. Ibis*, 1894, p. 495 & p. 497 (Antarctic America); *Fleck, J. f. O.* 1894, p. 379 (Walvisch B.).

Larus fuscus (*nec Linn.*), *King, Zool. Journ.* iv. p. 103 (1828–29); *id. Voy. 'Advent.' & 'Beagle,'* i. p. 541 (1839: Magellan Str.); *Webster, Voy. 'Chanticleer,'* p. 160 (1834: South Shetland Is.); *Gray in Dieffenb. Trav. N. Zeal.* ii. App. p. 200 (1843); *Cassin, Perry's U.S. Exped.* ii. p. 247 (1856: Cape G. Hope); *Chapm. Trav. W. Afr.* ii. p. 425 (1868: Walvisch Bay).

Larus flavipes (part.), *Temm. Man. d'Orn.* 2e éd. 4e pte. p. 472 (1840: Cape G. Hope).

Larus littoreus, *Forst. Descr. Anim.* p. 46 (1844: Cape of Good Hope).

Larus antipodus, *Gray, List B. Brit. Mus.*, Anseres, p. 169 (1844: New Zealand).

Dominicanus pelagicus, *Bruch, J. f. O.* 1853, p. 100 ("India and

Oceania"); *id. op. cit.* 1855, p. 280; *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 214 (1857).
Dominicanus vetula, *Bruch, J. f. O.* 1853, p. 100; *id. op. cit.* 1855, p. 281 (Cape Good Hope); *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 214 (1857).
Dominicanus vociferus, *Bruch, J. f. O.* 1853, p. 100; *id. op. cit.* 1855, p. 281 (S. America); *Bp. C. R.* xlii. p. 770 (1856).
Dominicanus antipodus, *Bruch, J. f. O.* 1853, p. 100 (New Zealand).
Larus vetula, *Bp. Naum.* 1854, p. 211 (S. America); *Gray, Hand-l. B.* iii. p. 112, no. 10954 (1871: S. Africa); *Gurney, Andersson's B. Damara-l.* p. 357 (1872); *Pelz. Verh. z.-b. Ges. Wien*, 1873, p. 160 (Cape G. Hope); *Shelley, Ibis*, 1875, p. 86 (Cape to Natal).
Larus verreauxii, *Bp. Naum.* 1854, p. 211; *id. Rev. et Mag. Zool.* vii. p. 16 (1855); *Gray, Hand-l. B.* iii. p. 112 (1871: Chile).
Larus antipodum, *Bp. Naum.* 1854, p. 211 (New Zealand); *Hutton, Ibis*, 1870, p. 366; *Gray, Hand-l. B.* iii. p. 112 (1871).
Larus pelagicus, *Bp. Naum.* 1854, p. 211.
Dominicanus fritzei, *Bruch, J. f. O.* 1855, p. 280 ("Straits of Sunda," [near Java?]*); *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 214 (1857).
Dominicanus verrauxii, *Bruch, J. f. O.* 1855, p. 281 (Chile).
Clupeilarus verrauxi, *Bp. C. R.* xlii. p. 770 (1856: Chile).
Clupeilarus antipodum, *Bp. C. R.* xlii. p. 770 (1856).
Larus vociferus, *Burm. Th. Bras.* iii. p. 448 (1856); *id. Reise La Plata*, ii. p. 518 (1861).
Dominicanus azaræ (*Less.*), *Bp. Consp. Av.* ii. p. 214 (1857).
Lestris antarcticus, *Ellman, Zool* 1861, p. 7472 (New Zealand).
Lestris fuscus, *Ellman, Zool.* 1861, p. 7472 (New Zealand).
Larus pacificus (*nec Lath.*), *Layard, Ibis*, 1863, p. 245 (New Zealand).
Larus azaræ, *Pelz. Orn. Bras.* p. 323 & p. 461 (1871); *id. Verh. z.-b. Ges. Wien*, 1873, p. 160 (Callao).
Larus fritzei, *Salvad. Ucc. Born.* p. 371 (1874: Strs. Sunda?).
Dominicanus litoreus, *Heine & Reichen. Nomencl. Mus. Hein.* p. 357 (1890).

Adult male. Smaller, but generally resembles the preceding species, except as regards the colour of the feet, a usually deeper and browner tinge in the black of the mantle, and the pattern of the primaries. The outermost quill is white for 2 inches apically (with a mere hair-line of black on the shaft) in very mature birds, while the second quill exhibits an irregular white subapical mirror; but in average adults the white on the 1st quill is turned into a large subapical mirror by the intrusion of a narrow black bar. In adults a year younger there is no mirror on the 2nd quill, which is black with a white tip, like the 3rd quill; at the 4th the usual paler "wedge" on the inner web begins to show, and this wedge goes on increasing in extent and in whiteness at its apex, until at the 7th quill it has amalgamated with the white tip; thenceforward the quills are white terminally and only slate-colour on the basal portions. Bill yellow, turning to red at the angle of the genys; iris white; tarsi and toes greyish olive with yellower

* Type in Wiesbaden Museum examined.

webs. Total length 23 inches, culmen 2·25, wing 16·5, tail 7, tarsus 2·4, middle toe with claw 2·5.

The *female* is smaller and has a less robust bill; there is, however, much individual variation irrespective of sex. For example, there is as much difference between birds obtained on the Island of Kerguelen alone, as there is between examples from all the rest of the area frequented by the species.

Immature. Browner on the mantle and wings; the primaries with hardly any white at their tips up to the 6th; tail mottled subterminally with dark brown; head and neck streaked with greyish brown; bill paler in colour.

Young. Mottled dark brown above and streaked with paler brown below (much darker than in *L. marinus* and more resembling this stage of *L. fuscus*, the next species); tail-coverts barred with brown; rectrices nearly uniform dark brown, with very little mottling during the first year; bill dark horn-colour; tarsi and toes brown. At a later stage some black begins to show on the mantle and the tail-coverts are white; the bill pale yellow, with a blackish band across the angle. The successive changes of plumage are much as in the preceding species and probably take about the same number of years.

Nestling. Very like that of *L. marinus*, but with a somewhat darker tint of greyish and less buff; tarsi and toes lead-colour.

Hab. South America, from lat. 10° S. to the Antarctic regions; the Falklands and South Georgian Islands; South Africa; the Crozet Islands and Kerguelen*; New Zealand and islands to the southward.

a. Imm. sk.	Callao Bay, Peru, Aug. (*Adml. A. H. Markham*).	H. Saunders Coll.
b. Juv. sk.	San Lorenzo, Callao Bay, Aug. (*Commr. MacFarlane, R.N.*).	H. Saunders Coll.
c. Ad. sk.	Islay, Peru (*S. F. Rowland*).	H. Saunders Coll.
d, e. ♀ imm. et juv. sk.	Coquimbo, Chile, Nov. (*Adml. A. H. Markham*).	H. Saunders Coll.
f. ♂ ad. sk.	Laraquete, Chile, Aug.	H. B. James, Esq. [P.].
g, h. ♂ ad.; *i.* Juv. sk.	Valparaiso Bay, Chile, Aug.	H. B. James, Esq. [P.].
k. Ad.; *l.* Juv. st.	Valparaiso Bay, Chile, Aug.	Sir W. Burnett & Capt. Fitzroy, R.N. [P.].
m. Ad. sk.	Valparaiso, Chile.	Capt. W. S. Brett [P.].
n. Ad. sk.	Valparaiso, Chile (*Gervase Mathew, R.N.*).	H. Saunders Coll.
o, p. Ad. sk.	Valparaiso, Chile (*E. C. Read*).	H. Saunders Coll.
q. ♀ sk.	Valparaiso, Chile, Aug. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'

* I do not find this species recorded from Tristan da Cunha, Prince Edward I., or Marion I.

r. ♀ imm.; *s*. Juv. sk.	Corral, Chile.	H. B. James, Esq. [P.].
t. ♂ juv. sk.	Cockle Cove, Magellan Straits, Feb. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
u. ♀ ad. sk.	Peckett Harbour, Magellan Straits, Jan. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
v, *w*. ♂ ad. et juv. sk.	Tom Bay, Magellan Straits, March, April (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
x. ♀ juv. sk.	Port Churruca, Magellan Straits, April (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
y. ♂ ad. sk.	Port Churruca, Magellan Straits.	H.M.S. 'Challenger' Exped.
z. Ad. st.	Magellan Straits.	Sir W. Burnett & Capt. Fitzroy, R.N. [P.].
a'. Ad. st.	South Shetland, 64° 18′ S. lat., 55° 50′ W. long., 1893 (*S. 'Balaena'*).	Capt. Fairweather [P.].
b'. Ad. sk.	East Patagonia.	Sir W. Burnett & Capt. Fitzroy, R.N. [P.].
c'. Ad. sk.	Berkeley Sound, Falklands.	Antarctic Exped. [P.].
d'. Ad. sk.	Falkland Islands.	Antarctic Exped. [P.].
e'. Juv. sk.	Falkland Islands (*Abbott*).	Gould Coll.
f'. Ad. sk.	Falkland Islands (*Falkland Is. Co.*).	Salvin-Godman Coll.
g'. ♀ ad. sk.	Falkland Islands, Oct. (*Falkland Is. Co.*).	Salvin-Godman Coll.
h'. Ad.; *i'*, *k'*. Pull. sk.	Falkland Islands (*Cameron*).	H. Saunders Coll.
l'–o'. Ad. et pull. sk.	Falkland Islands (*Dr. Henston*).	H. Saunders Coll.
p'. Ad. sk.	Buenos Ayres, Dec.	H. Durnford, Esq. [C.].
q'. ♀ ad. sk.	Buenos Ayres, June (*F. Withington*).	P. L. Sclater, Esq. [P.].
r'. Imm. sk.	South Africa (*L. capensis*, Smith).	Sir A. Smith [P.].
s'. Ad. sk.	Cape Colony.	E. L. Layard, Esq. [P.].
t', *u'*. Ad. sk.	Table Bay (*E. L. Layard*).	H. Saunders Coll.
v'. Ad. sk.	Knysna River, S. Africa.	Shelley Coll.
w'. Ad. sk.	Natal (*Col. H. W. Feilden*).	H. Saunders Coll.
x'–z'. Ad.; *a''*, *b''*. Juv. sk.	Kerguelen Island (*Antarctic Exped.*).	The Admiralty [P.].
c''. Ad. sk.	Royal Sound, Kerguelen Island, Dec. 1874.	Lt. Smith, R.N. [P.].
d''. Ad. sk.	Cumberland Bay, Kerguelen Island, June 5, 1840.	Dr. R. McCormick, R.N. [C.].
e''. Juv. sk.	Christmas Harbour, Kerguelen Island, June 23.	Dr. R. McCormick, R.N. [C.].

f'', *g''*. Ad. sk.; *h''*. Pull. st.	Cape Egmont, New Zealand.	New Zealand Co. [P.].
i''. ♂ ad.; *k''*. ♀ ad.; *l''*. Juv. st.	New Zealand.	Capt. Stokes [P.].
m''. Juv. sk.	New Zealand.	Sir E. Home [P.].
n''. Juv. sk.	New Zealand.	Sir Geo. Gray [P.].
o''. Ad. sk.	New Zealand, 44. 1. 18. 50 (*Antarctic Exped.*).	The Admiralty [P.].
p''. ♂ ad. sk.	Waima Rariri, New Zealand, Sept.	Tweeddale Coll.
q'', *r''*. Imm. et juv. sk.	Wellington, New Zealand (*Colonial Mus.*).	H. Saunders Coll.
s''–v''. ♀ ad.; ♂ imm. et juv. sk.	Dunedin, New Zealand, May.	Hume Coll.
w''. ♂ vix ad. sk.	Dunedin, New Zealand, June.	Hume Coll.
x''. ♀ ad. sk.	Otago, New Zealand, Aug.	Hume Coll.
y''. Ad. sk.	Preservation Inlet, S.W. New Zealand, Jan. 1889 (*J. J. Lister*).	Seebohm Coll.
z''. Ad. st.	Auckland Island, New Zealand (*Antarctic Exped.*)	The Admiralty [P.].
*a*³. Skeleton.	Kerguelen Island.	H.M.S.' Challenger' Exped.
*b*³. Sternum.	Tom Bay, Magellan Straits, April 1879 (*Dr. Coppinger*).	Voy. H.M.S.' Alert.'

28. Larus fuscus.

Le Goiland gris (partim), *Briss. Orn.* vi. p. 162 (1760).

Larus fuscus, *Linn. Syst. Nat.* i. p. 225 (1766): *Scop. Ann.* i. *Hist. Nat.* p. 80 (1769); *P. L. S. Müll. S. N.* ii. p. 347 (1773); *Gm. S. N.* i. p. 599 (1788); *Lath. Ind. Orn.* ii. p. 815 (1790); *Retzius, F. Suec.* p. 157 (1790); *Temm. Man. d'Orn.* p. 496 (1815); *Koch, Syst. Baier. Zool.* p. 373 (1816); *Nilss. Orn. Suec.* p. 169 (1817); *Temm. Man. d'Orn.* éd. 2, p. 767 (1820); *Boie, Isis*, 1822, p. 563; *Brehm, Lehrb.* p. 717 (1824); *Macgill. Mem. Wern. Soc.* v. p. 260 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 194 (1826); *Fleming, Brit. An.* p. 140 (1828); *Werner, Atlas, Palmipèdes*, pl. 18 (1828); *Savi, Orn. Tosc.* iii. p. 57 (1831); *Selby, Brit. B.* ii. p. 509, pl. xcv. (1833); *Jenyns, Man. Brit. Vertebr.* p. 277 (1835); *Eyton, Brit. B.* p. 53 (1836); *Gould, B. Eur.* v. pl. 431 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Schinz, Eur. Faun.* p. 380 (1840); *Crespon, Orn. Gard*, p. 484 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcvii & p. 245 (1840); *Naum. Vög. Deutschl.* x. p. 419, taf. 267 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 280 (1840); *Selys-Longch. Faun. Belg.* p. 154 (1842); *Schl. Rev. Crit.* p. cxxiv (1844); *Crespon, Faun. Mérid.* ii. p. 123 (1844); *Gray, List B. Brit. Mus.*, Anseres, p. 168 (1844); *Mühle, Orn. Griechenl.* p. 144 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 583 (1845); *Rüpp. Syst. Uebers.* p. 138 (1845: Egypt); *Hewits. Eggs Brit. B.* ii. p. 443, pl. cxxvi. (1846); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 304 (1849); *Thomps. B. Irel.* iii. p. 371 (1851); *Macgill. Brit. B.* v. p. 538 (1852); *Kjærb. Danm. Fugle*, p. 342, tab. xlii. (1852), and *Suppl.* tab. xxiii. (1854); *Schl. Vog. Nederl.* p. 597, pls. 345, 346 (1854); *Licht. Nomencl. Av.* p. 99 (1854: chiefly); *Bp. Naum.* 1854,

p. 211; *Heugl. Syst. Uebers.* p. 69 (1856: Egypt to Blue and White Nile); *Meyer, Brit. B.* vii. p. 162, pl. 311 (1857); *Heugl. Ibis*, 1859, p. 349 (Red Sea to Aden Gulf); *Jaub. et E.-Lapomm. Rich. Orn. Fr.* p. 391 (1859); *Powys, Ibis*, 1860, p. 356 (Ionian Is., winter); *Linderm. Vög. Griechenl.* p. 176 (1860); *Schl. Dier. Nederl. Vogels*, p. 235 (1861); *Heugl. in Peterm. Mitth.* 1861, pp. 29, 312 (Red Sea); *Sundev. Sv. Fogl.* pl. 50. fig. 4 (1863?); *Gray, Cat. Brit. B.* p. 231 (1863): *Schl. Mus. P.-Bas*, Lari, p. 15 (1863); *Salvad. Ucc. Sard.* p. 130 (1864); *Wright, Ibis*, 1864, p. 151 (Malta); *Tristr. P. Z. S.* 1864, p. 454 (Palestine); *J. H. Blas. J. f. O.* 1865, p. 379 (critical); *Degl. et Gerbe, Orn. Eur.* ii. p. 415 (1867); *Holtz, J. f. O.* 1868, p. 124 (Gottland I., breeds); *Borggr. Vogelf. Norddeutschl.* p. 143 (1869); *Doderl. Avif. Sicil.* p. 232 (1869); *Droste, Voyelw. Borkum*, p. 352 (1869); *Finsch & Hartl. Vög. Ost-Afr.* p. 820 (1870); *Fritsch, Vög. Eur.* p. 475, tab. 56. fig. 7, & tab. 58. fig. 8 (1870); *Blanford, Geol. & Zool. Abyss.* p. 440 (1870); *R. Gray, B. West Scotl.* p. 485 (1871); *G. R. Gray, Hand-l. B.* iii. p. 112, no. 10959 (1871); *Meves, Œfv. Ak. Förh.* p. 787 (1871: Finland to St. Petersburg: not eastward); *Saunders, Ibis*, 1871, p. 400 (S. Spain); *Salvad. Faun. Ital., Ucc.* p. 294 (1872); *Godman, Ibis*, 1872, p. 223 (Canaries and Madeira); *Harting, Handb. Brit. B.* p. 77 (1872); *Shelley, B. Egypt*, p. 304 (1872: Nubia); *Palmén, Finlands Foglar*, p. 604 (1873); *Sharpe & Dress. B. Eur.* viii. p. 421, pl. 603 (1873); *Collett, Forh. Selsk. Christian.* 1873, p. 296 (N. Norway); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1382 (1873); *Antin. & Salvad. Viagg. Bogos*, p. 155 (1873); *Alston & H-Brown, Ibis*, 1873, p. 52 (Dwina, imm.); *Brooke, Ibis*, 1873, p. 348 (Sardinia); *Gould, B. Gt. Brit.* v. pl. 56 (1873); *Irby, Orn. Strs. Gibr.* p. 215 (1875); *Saunders, Bull. Soc. Zool. Fr.* 1877, p. 203 (S. Spain); *Collett, N. Mag. Naturv.* 1877, p. 209 (N. Norway); *Reichenow, J. f. O.* 1877, p. 10 (Bonny); *Taylor, Ibis*, 1878, p. 373 (Port Said); *Saunders, P. Z. S.* 1878, p. 173 (revision Larinæ); *id. Journ. Linn. Soc.* xiv. p. 397 (1878: distribution); *Klunzinger, Z. Ges. Erdk. Berlin*, Bd. xiii. Hft. ii. p. 89 (1878: Koseir, Red Sea); *Lilford, Ibis*, 1880, p. 481 (Arbolan I., breeding); *Rodd, B. Cornw.* p. 173 (1880); *Giglioli, Ibis*, 1881, p. 220 (Italy, rare); *Seebohm (Henke), Ibis*, 1882, p. 230 (N. Caspian, but very rare); *Irby, Ibis*, 1883, p. 189 (Santander: May, June, and especially Nov.); *B. O. U. List Brit. B.* p. 189 (1883); *Tristr. Faun. & Flor. Palest.* p. 138 (1884); *Saunders, Ibis*, 1884, p. 391 (S.W. France); *id. 4th ed. Yarr. Brit. B.* iii. p. 624 (1884); *Seebohm, Brit. B.* iii. p. 319 (1885); *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 131 (1885: St. Petersburg); *Homeyer, Ornis*, 1885, p. 80; *Lütken, t. c.* p. 145; *D. Torre & Tschusi, t. c.* p. 561 (Austria-Hungary); *Alharda, t. c.* p. 629 (Holland); *Giglioli, Avif. Ital.* p. 431 (1886); *Alléon, Ornis*, 1886, p. 422 (Dobrudscha, on migration); *Booth, Rough Notes*, iii. (1887); *Salvad. Ucc. Ital.* p. 288 (1887); *Tait, Ibis*, 1887, p. 396 (Portugal, winter); *H-Br. & Buckl. Faun. Sutherl. &c.*, p. 232 (1887); *Hartert, MT. orn. Ver. Wien*, 1887, p. 180 (E. Prussia); *Taczan. Ornis*, 1888, p. 507 (Poland); *H-Br. & Buckl. Faun. Out. Hebr.* p. 147 (1888); *Reid, Ibis*, 1888, p. 79 (Tenerife); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 63 (1889); *Lilford, Ibis*, 1889, p. 349 (Cyprus, adults); *Riesenth. Wasservög. Mitteleurop.* p. 134 (1889); *Saunders, Man. Brit. B.* p. 659 (1889); *Stevenson & Southw. B. Norfolk*, iii. p. 337 (1890); *Gigl. 1° Resoc. Av. Ital.* p. 645 (1889); *id. 2° Resoc.* p. 654 (1890); *id.*

3° *Resoc.* p. 513 (1891); *Keller, Orn. Carinthiæ*, p. 301 (1890); *Borrer, B. Sussex*, p. 268 (1891); *Buckl. & H-Br. Faun. Orkney Is.* p. 232 (1891); *Taylor, Ibis*, 1891, p. 473 (coast of Egypt); *Gätke, Vogelw. Helgol.* p. 568 (1891); *Jäckel & Blas. Vög. Bayerns*, p. 361 (1891); *Macphers. Faun. Lakeland*, p. 429 (1892); *H-Br. & Buckl. Faun. Argyll &c.* p. 191 (1892); *Hartert, Ibis*, 1892, p. 521 (E. Prussia, winter); *Fatio & Studer, Cat. Ois. Suisse*, p. 60 (1892); *D'Urban & Mathew, B. Devon*, p. 378 (1892): *Meade-Waldo, Ibis*, 1893, p. 206 (Canaries, winter); *Lilford, Col. Figs. Brit. B.* pt. xxiii. (1893); *A. Dubois, Vertebr. Belg., Ois.* p. 587, pl. 292 (1894); *Mathew, B. Pembroke*, p. 104 (1894); *Collett, Nyt Mag. Naturv.* Bd. xxxv. p. 308 (1894: Norway); *Reichenow, Vög. Deutsch-O.-Afr.* p. 19 (1894: Victoria Nyanza, winter); *Ussher, Pr. R. Irish Acad.* (3) iii. p. 410 (1894); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 301 (1895).

Silvery Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 375 (1785).

Larus flavipes, *Wolf & Meyer, Naturg. Vög. Deutschl.* ii. p. 32, cum tab. (1805); *Meyer, Taschenb. Vög. Deutschl.* ii. p. 469, pl. front. (1810); *Meisn. & Schinz, Vög. Schweiz*, p. 276 (1815); *Meyer, Vög. Liv- u. Esthl.* p. 231 (1815); *Vieill. Enc. Méth.* i. p. 346 (1823); *id. Faune Franç., Ois.* p. 394 (1828?); *Lesson, Traité*, p. 617 (1831); *Temm. Man. d'Orn.* 2e éd. 4e pte. p. 471 (1840); *Macgill. Man. Brit. Orn.* ii. p. 245 (1842); *Bouteille, Orn. Dauphiné*, ii. p. 243 (1843); *Bailly, Orn. Savoie*, iv. p. 310 (1854).

Larus cinereus (partim), *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 40 (1816).

Larus argentatus, *Bewick, Brit. B., Suppl.* p. 39 (1821).

Leucus fuscus, *Kaup, Natürl. Syst.* pp. 86, 196 (1829).

Laroides melanotus, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 747 (1831); *id. Naum.* 1855, p. 294.

Laroides harengorum, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 748 (1831).

Laroides fuscus, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 749 (1831); *id. Naum.* 1855, p. 294.

Lesser Black-backed Gull, *Yarr. Brit. B.* iii. p. 463 (1843).

Dominicanus fuscescens (partim), *Bruch, J. f. O.* 1853, p. 100*.

Dominicanus fuscus, *Bruch, J. f. O.* 1853, p. 100; *id. op. cit.* 1855, p. 281 (including his *L. fuscescens* of *J. f. O.* 1853, p. 100).

Laroides harengorium [sic], *Brehm, Naum.* 1855, p. 294.

Laroides fuscescens, *Brehm, Naum.* 1855, p. 294.

Laroides *a.* nigrodorsalis, *Brehm, Naum.* 1855, p. 294.

Laroides *β.* assimilis, *Brehm, Naum.* 1855, p. 294.

Clupeilarus fuscus, *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 220 (1857); *Loche, Expl. Sci. Algér., Ois.* ii. p. 181 (1867); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 69 (1886).

Larus graellsii, *A. Brehm, Allg. Deutsch. Naturh.* p. 483 (1857: Málaga).

"Larus medius," *Hempr. & Ehr.* (*nec Brehm*) 1824, *MS. fide Saunders, P. Z. S.* 1878, p. 173 (Gumfudde: type in Berlin Mus.).

Adult male in breeding-plumage. Head, neck, tail, and under surface white; mantle and wing-surface varying from dark lead-colour to black, the scapulars and secondaries broadly tipped with

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* Specimens in Mainz Museum examined.

white. Mature birds have a subapical white mirror on the 1st primary and a smaller one on the 2nd, but in the majority of examples there is no spot on the latter; the larger quills are chiefly black—especially on the outer webs, with white tips which are minute on the outermost and increase in size ascendingly; the bases of the quills are, however, lead-colour, especially on the inner webs, so that at the 3rd a "wedge" becomes visible, while from the 4th upwards the lead-colour has spread to the outer web, and the black portion becomes by contrast a subterminal bar, decreasing in size ascendingly and disappearing at the 6th or 7th quill, whence the feathers are lead-colour, with white tips. In dark-winged birds there is no marked contrast of colour in the wedge until the 5th quill is reached, when the subterminal bar becomes visible. Bill yellow, the angle of the genys red; iris pale straw-yellow; tarsi and toes bright lemon-yellow. Total length nearly 22 inches, culmen 2·5, wing 16–16·5, tail 6·5, tarsus 2·6, middle toe with claw 2·25.

The *female* is smaller, with less robust bill.

Adult in winter. Head and neck streaked with dusky brown.

Obs. The principal characteristics of *L. fuscus* are the comparatively long tarsus and the small delicate foot. The colours of the mantle and wings are so variable in shade that the palest examples might be mistaken for the next species, *L. affinis*, but for the larger size and coarser foot of the latter. The blackest examples of *L. fuscus* are found indifferently in the Færoes, Norway, Egypt, and on the Red Sea; the lightest are perhaps some from Scotland; and between the extremes there is every gradation.

Young. Head, neck, and under surface whity brown, with darker streaks; feathers of the mantle and wings clove- to umber-brown, with buffish edges; quills sooty brown to black; rectrices chiefly dark brown tipped with white, and rather boldly mottled on a greyish ground at their bases. With increasing age of the bird the dark subterminal brown breaks up into bars and patches, but so long as these exist they are sharply defined. By the end of the first year the mantle is chiefly dark brown, the buff edges having worn off. Bill dark horn-colour; tarsi and toes yellowish brown.

Immature. Head and neck flecked with brownish; mantle slate-colour, with a brown tinge; quills dark brown, with an indication of a spot on the 1st; tail-feathers white, slightly mottled with greyish brown; under surface white: bill yellowish basally; legs distinctly yellow.

Four years elapse between the young and the adult plumage.

Nestling. Greyish buff, streaked and spotted with black on the upper parts and throat.

Hab. Northern Europe from the Dwina westward to the Færoes (but not in Iceland), and southward to the Mediterranean (breeding); in winter to the Canaries, Senegal, Fantee, Bonny, Egypt, Nubia, the Red Sea (said to be resident on the last), and Fao, Persian Gulf. Very rare in the North Caspian, and practically not found east of the line of the Dwina, where *L. affinis* begins.

a. ♂ ad. st.	Great Britain.	Col. Montagu [P.].
b. Imm. st.	Scilly Islands.	D. W. Mitchell, Esq. [P.].
c. Juv. sk.	Fowey, Cornwall, Aug.	Dr. A. Günther [P.].
d. Ad. st.	Torquay.	C. Coningham, Esq. [P.].
e, *f*. Juv. & vix ad. sk.	Pagham, Sussex, Sept. & Oct.	R. B. Sharpe, Esq. [P.].
g–*l*. ♀ ad., vix ad. & juv. sk.	Romney Marsh, Kent, Aug., Sept.	R. B. Sharpe, Esq. [P.].
m. Juv. st.	Gravesend.	Purchased.
n. ♂ ad. sk.	Loch Lomond, May (*A. Anderson*).	Seebohm Coll.
o, *p*. Ad. & imm. st.	Beaufort Castle, Inverness, May.	Lord Lovat [P.].
q, *r*. ♂ ♀ ad. sk.	Caithness, summer.	Col. L. H. Irby [P.].
s. Ad. st.	Sutherlandshire, summer.	Lady Flower [P.].
t. ♂ ad. sk.	Loch Ballon, Ross-shire, June (*J. A. Harvie-Brown*).	Hume Coll.
u–*x*. Ad. & pull. st.	Hill of Hoy, Orkneys (*Dunn*).	Purchased.
y. ♂ ad. sk.	Stromness, Orkneys (*J. Dunn*).	H. Saunders Coll.
z, *a'*. ♂ ♀ ad.; *b'*, *c'*. Pull. st.	Mousa, Shetlands, June.	Lt. C. H. Bruce, R.N. [P.].
d'–*f'*. ♂ ♀ ad.; ♀ imm. sk.	Færoe Islands, June, Aug., Sept. (*Müller*).	H. Saunders Coll.
g', *h'*. ♀ ad. & vix ad. sk.	Bodö, Nordland, Norway, July (*H. Seebohm*).	Seebohm & H. Saunders Colls.
i'. Imm. sk.	Lower Dwina, Russia, June (*J. A. Harvie-Brown*).	H. Saunders Coll.
k'–*o'*. ♂ ♀ imm. & juv. sk.	Havre, France, May, Sept. (*V. Pluche*).	H. Saunders Coll.
p'. ♂ ad. sk.	Valencia, E. Spain, April (*R. Martin*).	H. Saunders Coll.
q'. ♂ ad.; *r'*. Imm. sk.	Malaga, S. Spain, April & Jan. (*Rios*).	H. Saunders Coll.
s'. ♂ ad. sk.	Tangier, Dec. (*Olcese*).	H. Saunders Coll.
t'. Juv. sk.	Fantee (*Blissett*).	Shelley Coll.
u'. ♂ ad. sk.	Larnaka, Cyprus, April.	Lord Lilford [P.].
v'. Ad. sk.	Palestine.	Dr. S. Merrill [P.].
w', *x'*. Ad. sk.	Thebes, Egypt, April 24 (*G. E. S.*).	Shelley & Saunders Colls.
y'. ♀ juv. sk.	Zoulla, Abyssinia.	W. T. Blanford [C.].
z'. ♂ juv. sk.	Fao, Persian Gulf, Feb.	S. Butcher, Esq. [P.].
a''. Skeleton.	England.	Purchased.
b''. ♂ skeleton.	Lyme Regis.	Dr. Günther [P.].

29. Larus affinis.

[?] Larus littoreus, *Forst. Ind. Zool.* p. 42 (1781: not of his *Descr. Anim.*, which = *L. dominicanus*).

Larus sp. n. ?, *Jerdon, Madras Journ.* xii. p. 225, no. 407 (1840: Deccan, inland).

Larus fuscus, *Hutton, J. A. S. Beng.* xv. p. 792 (1847: Cabul); *Blyth, Cat. B. Mus. As. Soc.* p. 288 (1849: part [cf. *Hume, Str.*

F. iv. p. 502]); *Jerd. B. Ind.* iii. p. 830 (1864: Jaulna, Deccan); *Filippi, Viagg. Pers.* p. 352 (1865: Caspian); *Blyth, Ibis*, 1867, p. 176 & p. 314; *Blanford, East. Pers.* ii. p. 290 (1876: Baluchistan).

Larus cachinnans, *Licht. (nec Pall.) Nomencl. Av.* p. 99 (1854: Arabia)*; *Meves, Öfv. K. Vetensk.-Ak. Förh.* 1871, p. 786 (Cholmogony, Dwina); *Heugl. Orn. N.O.-Afr.* Bd. ii. p. 1392 (1873, partim: [as regards Somali coast]); *Meves & Homeyer, Ornis*, 1886, p. 275 (Lower Dwina).

Larus affinis, *Reinhardt, Vidensk. Meddel.* 1853, p. 78; *id. Ibis*, 1861, p. 17 (S. Greenland: type in Copenhagen Mus.); *Seebohm & H-Brown, Ibis*, 1876, p. 452 (Lower Petchora); *Saunders, P. Z. S.* 1878, p. 171 (revision Larinæ); *id. Journ. Linn. Soc.* xiv. p. 397 (1878: distribution); *Gätke, Ibis*, 1878, p. 489 (Heligoland); *Finsch, Verh. z.-b. Ges. Wien*, 1879, p. 268 (West Siberia); *id. Ibis*, 1879, p. 111 (part.); *Seebohm, t. c.* p. 116 (Yenesei, breeding); *Hume, Str. F.* viii. p. 115 (1879: List); *Vidal, op. cit.* ix. p. 94 (S. Konkan, Malabar); *Butler, t. c.* p. 439 (Deccan coast); *Dresser, B. Eur.* viii. p. 417 (1880); *Scl. & Hartl. P. Z. S.* 1881, p. 174 (Socotra I.); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881: Greenl.); *Olphe-Gall. Ibis*, 1885, p. 236 (Hendaye, S.W. France); *id. Orn. Eur. Occid.* fasc. x. p. 66 (1886); *A. O. U. Check-l. N. Amer. B.* p. 89 (1886: Greenland); *Ridgw. Man. N. Amer. B.* p. 29 (1887): *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 56 (1888: Turkestan).

Dominicanus cachinnans, *Bruch, J. f. O.* 1853, p. 100.

Larus rufescens, *Bp. Naum.* 1854, p. 211 ("Red Sea"; cf. *Consp. Av.* ii. p. 221); *Lloyd, Ibis*, 1873, p. 420 (Kattiawar).

Laroides cachinnans, *Bruch, J. f. O.* 1855, p. 282.

Clupeilarus fuscescens, *Bp. Consp. Av.* ii. p. 221 (1857: Red Sea).

Clupeilarus cachinnans, *Bp. Consp. Av.* ii. p. 221 (1857: [chiefly]).

Larus leucophæus, *Heugl. Ibis*, 1859, p. 349 (Somali coast & Gulf of Aden); *id. in Peterm. Mitth.* 1861, p. 29 (Red Sea).

Larus, sp. ?, *Heugl. Ibis*, 1872, p. 65 (Novaya Zemlia and Waigats).

Larus occidentalis, *Hume, nec Audub. Str. F.* 1873, p. 273 (N.W. coast India); *id. op. cit.* 1876, p. 414 (Bombay).

Larus marinus, *Alston & H-Brown, Ibis*, 1873, p. 52 (Lower Dwina: ad. & nestling in B. M. Coll.).

Larus borealis, *Seebohm* (*Henke*), *Ibis*, 1882, p. 386 (Solovestsk, breeding).

Adult male in breeding-plumage. Similar to the preceding species, but decidedly larger; the mantle slate-colour and always a shade lighter than in the palest *L. fuscus*; the pattern of the primaries similar, but the slate-grey purer and the "wedges" more sharply contrasted; a mirror on the 2nd quill in fully mature birds, though these appear to be rare: bill yellow, with a red spot at the angle of the genys; tarsi and toes yellow. Total length 24 inches, culmen 2·9, wing 18, tail 7·5, tarsus 2·75, middle toe with claw 2·5.

The *female* is smaller and less robust.

Adult in winter. Like the above, but flecked with brown about the head and neck, even in those mature birds which exhibit a mirror on the 2nd primary: bill with a greenish tinge.

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* Specimens in Berlin Museum examined.

Young and *Immature*. As in *L. fuscus*, allowing for the fact that the general colour of the mantle and wings is lighter.

Nestling. As in the preceding species.

Hab. The large river-systems of Northern Russia and Siberia, from the Dwina eastward as far as the Yenesei (breeding), but doubtfully in the Lena valley; in winter to the Mekran coast, the western side of India, the Arabian coast, Socotra, Somaliland, and Aden, but not yet authenticated within the Red Sea. Fortuitously in South Greenland (once only: the type) and Heligoland; also S.W. France [?].

Dr. O. Finsch has identified with this species birds from near Lisbon, Leiden, Kamschatka, and Macao, China ('Ibis,' 1879, p. 111).

a. ♂ ad. sk.	Lower Dwina, June 21 (*Alston & H-Brown*).	J. A. Harvie-Brown, Esq. [P.].
b. Pull. sk.	Lower Dwina, June 21 (*A. & H-B.*).	H. Saunders Coll.
c. ♂ ad.; *d*. ♂ juv. sk.	Lower Petchora River, June 1875 (*Seebohm & Harvie-Brown*).	H. Saunders Coll.
e. ♀ imm. sk.	Malo Atlim, Ob River, July.	Dr. O. Finsch [C.].
f. ♂ ad. sk.	Longiorskaja, Ob, Sept.	Dr. O. Finsch [C.].
g. ♂ ad.; *h*. ♀ imm. sk.	Yenesei valley, lat. 66° N., June 29–July 3, 1877.	Seebohm & H. Saunders Colls.
i. ♀ imm. sk.	Yenesei valley, lat. 69° N., July 29.	
k. ♀ imm. sk.	Yenesei valley, lat. 71° 31′ N., July (*H. Seebohm*).	
l. Juv. sk.	Kandahar.	Hume Coll.
m–*p*. ♂ imm. & ♀ juv. sk.	Gwader, Mekran coast, Dec. & Feb.	Hume & W. T. Blanford Colls.
q, *r*. ♂ ♀ ad. sk.	Cape Monze, Siud, Feb. (*W. T. Blanford*).	Hume Coll.
s. ♀ ad.; *t*. ♂ juv. sk.	Karachi (*Dr. H. Gould*).	India Museum [P.].
u–*l′*. ♂ ♀ ad., imm., & juv. sk.	Karachi, Feb. (*A. O. H.*).	Hume Coll.
m′. ♀ ad. sk.	Karachi, March 22 (*Col. E. A. Butler*).	Hume Coll.
n′–*q′*. Ad., imm., & juv. sk.	Karachi, March (*E. A. B. & W. B. Muloch*).	H. Saunders Coll.
r′. Ad. sk.	Kattiawar.	Col. Hayes Lloyd [P.].
s′. ♀ imm. sk.	Punjab. Feb.	Hume Coll.
t′, *u′*. ♂ ♀ juv. sk.	Sirsa, Punjab, Dec. & Feb. (*A. O. H.*).	Hume Coll.
v′–*y′*. ♂ ad. & imm., ♂ ♀ juv. sk.	Bombay Harbour, Jan., Feb.	Hume Coll.
z′, *a″*. ♂ ♀ imm. sk.	Quilon, Travancore, Feb.	F. Bourdillon, Esq. [C.].
b″. ♂ juv. sk.	Socotra Island.	Prof. Isaac Balfour [C.].
c″. ♂ imm. sk.	Aden, Nov. 11.	H. Saunders Coll.
d″, *e″*. ♂ ad. sk.	Aden, Feb. 25, 1895.	Col. Yerbury [P.].

30. Larus occidentalis.

[?] Larus argentatus, *Nordm. in Erman's Reis. um die Erde, Atlas, Verzeichn. Th. u. Pfl.* p. 18 (1835: California).

Larus occidentalis, *Aud. Orn. Biogr.* v. p. 320 (1839); *id. Synop.* p. 328 (1839); *id. B. N. Amer.* 8vo ed. vii. p. 161 (1844); *Gray, Gen. B.* iii. p. 654 (1846); *Baird, Cass., & Lawr. B. N. Amer.* p. 845 (1858); *Cassin, U.S. Expl. Exped.* p. 247 (1858: California); *Heerm. Pacific R. Rep.* x. pt. vi. p. 73 (1859); *Cooper & Suckley, Nat. Hist. Wash. Terr.* p. 271 (1860); *Coues, Pr. Philad. Acad.* 1862, p. 296; *id. Ibis*, 1866, p. 271 (San Pedro); *Schleg. Mus. P.-Bas*, Lari, p. 15 (1863); *Elliot, New & Unfig. B. N. Amer.* ii. pl. lii. (1869); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Coues, 2nd ed. Check-l. N. Amer. B.* p. 121 (1882); *Belding, Pr. U.S. Nat. Mus.* v. p. 549 (1883: L. Cala.); *Coues, Key N. Amer. B.* 2nd ed. p. 744 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 230 (1884); *Henshaw, Auk*, 1885, p. 232 (Cala.); *A. O. U. Check-l. N. Amer. B.* p. 88 (1886); *Blake, Auk*, 1887, p. 329 (Sta. Cruz I., Cala., breeds); *Ridgw. Man. N. Amer. B.* p. 28 (1887); *N. S. Goss, Auk*, 1888, p. 240 (San Pedro Martir I., 28° N.); *W. A. Jeffries, op. cit.* 1889, p. 222 (Sta. Barbara, Cala.); *R. H. Lawrence, op. cit.* 1892, p. 41 (Washington Terr.); *Loomis, Pr. Cala. Acad.* v. p. 213 (1895).

Glaucus occidentalis, *Bruch, J. f. O.* 1853, p. 101.

Laroides occidentalis, *Bruch, J. f. O.* 1855, p. 282; *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 219 (1857).

Larus argentatus, var. occidentalis, *Coues, Key N. Amer. B.* p. 312 (1872); *id. Check-l.* no. 547 *b* (1873); *id. B. N.-West*, p. 633 (1874); *Streets, Bull. U.S. Nat. Mus.* vii. p. 25 (1877: Lower Cala.).

Larus fuscus ?, *Saunders, P. Z. S.* 1875, p. 158 (Lower California: a very small female).

Adult male in breeding-plumage. Head, neck, tail, and under surface pure white; mantle darker and of a bluer slate-colour than in *L. affinis*; secondaries similarly tipped with white; all the primaries tipped with white, but the outer ones least; the three outer quills chiefly black, with a white sub-apical mirror on the 1st, and a white spot (or two) on the 2nd, but not a true mirror; on the 4th quill the grey "wedge" from the basal portion runs down the inner web; on the 5th both webs are chiefly grey, turning whitish at the apex of the wedge, followed by a black subterminal bar; in the 6th the black bar is narrower; the upper primaries are grey with white tips. Bill chrome-yellow with red angle, very stout; eyelid vermilion; tarsi and toes yellow (in life). Total length 21–22 inches, culmen 2·8, wing 16·5, tail 7, tarsus 2·7, middle toe with claw 2·7.

The *female* is smaller and her bill is far less robust.

Adult in winter. Similar. Dr. Elliott Coues ('Ibis,' 1866, p. 271) says that the head of the mature bird is not streaked in this species, and, so far as our material goes, he appears to be right; but the authors of the 'Water-Birds of North America' state that in winter the head is streaked. In the immature or even in the *nearly* adult bird it is so, undoubtedly.

Young. Upper surface dark brown, with a greyish tinge on the

head; mantle somewhat mottled, quills sooty brown, tail-coverts barred with umber on a white ground; rectrices dark brown with ry narrow white tips, but otherwise uniform, without any mottling or marbling: under surface greyish brown to brownish grey; under wing-coverts dark brown: bill blackish, flesh-coloured at the base; tarsi and toes flesh-colour (drying pale brown).

Immature. Head and neck mottled with pale brown, the underparts nearly dull white; the middle of the mantle and the scapulars nearly pure slate-colour, but the wings still mottled with brown; the tail-coverts nearly white, but the rectrices uniform brown: bill yellow, with a black band across the angle.

At a later stage there is an increase of slate on the mantle; the tail-feathers are chiefly white, with spots or a broken bar of black, subterminally; head and underparts white.

Nestling. Buffish grey, the head boldly spotted with black, and the back rather thickly streaked with blackish.

Hab. Pacific coast of North America, from Washington Territory to the southern portion of Lower California.

a, b. ♀ ad. & juv. sk.	Pacific Beach, Cala., April and Aug. (*Hepburn*).	H. Saunders Coll.
c. Pull. sk.	Farallones, San Francisco Bay, June 23 (*Hepburn*).	H. Saunders Coll.
d. Ad. sk.	San Francisco Bay (*F. Gruber*).	H. Saunders Coll.
e. ♀ imm. sk.	San Francisco Bay (*Culis*).	H. Saunders Coll.
f, g. Ad. & vix ad. sk.	Santa Cruz Island, Cala., June (*H. W. Henshaw*).	Salvin-Godman Coll.
h. ♀ ad. sk.	Santa Cruz Island, Cala., June (*H. W. H.*).	H. Saunders Coll.
i. Ad. sk.	Off Sta. Cruz Island, 33° N., 119° W., March (*Admiral A. H. Markham*).	H. Saunders Coll.
k. Vix ad. sk.	San Miguel Island, Cala., Aug. (*H. W. Henshaw*).	Salvin-Godman Coll.
l, m. ♂ ad. sk.	Ventura, Cala., Nov. (*H. W. H.*).	Salvin-Godman Coll.
n. ♀ ad. sk.	Magdalena Bay, Lower Cala., Nov. (*G. Mathew, R.N.*).	H. Saunders Coll.
o, p. ♀ ad. & juv. sk.	San Diego, Dec. (*H. W. Henshaw*).	Salvin-Godman Coll.

31. Larus schistisagus.

Larus argentatus (part.), *Middend. Reise Sib., Zool.* p. 243 (1851: Okhotsk Sea); *Kittl. Denkw. Reis.* ii. p. 255 (1858).

Larus cachinnans (*nec Pall.*), *Kittl. Denkw. Reis.* i. p. 336 (1858); *Stejneg. Naturen*, 1884, p. 6.

Larus fuscescens, *Mewes, Öfv. Ak. Förh.* 1871, p. 787.

Larus marinus (*nec Linn.*), *Swinh. Ibis*, 1874, p. 165 (Hakodadi, Japan); *Saunders, P. Z. S.* 1878, p. 180 (part.: same loc.); *Seebohm, Ibis*, 1879, p. 24; *Bean, Pr. U.S. Nat. Mus.* 1882, p. 168; *Ridgw. Bull. Nutt. Orn. Club*, 1882, p. 60 (both sides Bering Str.); *Blakist. & Pryer, Tr. As. Soc. Jap.* x. pt. i. p. 104

(1882); *Nelson, Cruise 'Corwin,'* p. 107 (1883: Plover Bay); *Blakiston, Amend. List B. Japan*, p. 20 (1884); *Seebohm, B. Japan. Emp.* p. 291 (1890).

Larus pelagicus (*nec Bruch*), *Taczan. Bull. Soc. Zool. Fr.* 1876, p. 263; *id. J. f. O.* 1876, p. 202 (Abrek Bay); *id. Bull. Soc. Zool. Fr.* 1882, p. 397 (Kamtschatka).

Larus affinis, *Seebohm, Ibis*, 1879, p. 24 (?); *Blakiston & Pryer, Tr. As. Soc. Japan*, x. pt. i. p. 104 (1882).

Larus borealis (*nec Bruch*), *Seebohm, Ibis*, 1884, p. 32 (Kuril Is., sp. "no. 2787;" *nec Seeb. Ibis*, 1882, p. 236, which=*L. affinis*); *Blakiston, Amend. List B. Japan*, pp. 20, 34 (1884).

Larus schistisagus, *Stejneg. Auk*, 1884, p. 231 (Bering I., Kamtschatka); *Baird, Brew., & Ridgw. Water-B. N. Amer.* ii. p. 229 (1884: Alaska); *Stejneg. Bull. U.S. Nat. Mus.* no. 29, p. 67 (1885: Commander Is., &c.); *A. O. U. Check-l. N. Amer. B.* p. 88 (1886); *Stejneg. Pr. U.S. Nat. Mus.* x. p. 119, pl. viii. fig. 1 (1887: Commander Is.); *Ridgw. Man. N. Amer. B.* p. 29 (1887); *Nelson, Rep. N. H. Alaska*, p. 53 (1887: Diomede Is.); *Nikolski, Sakhalin Faun.* p. 270 (1889); *Taczan. Mém. Ac. Pétersb.* (7) xxxix. p. 1024 (1893: East Siberia); *Allen, Auk*, 1893, p. 123 (distribution).

Larus marinus schistisagus, *Seebohm, B. Japan. Emp.* p. 291 (1890).

Adult male in breeding-plumage. Head, neck, tail, and underparts white; mantle and upper wing-surface dark slate-colour of varying shades, but darker, as a rule, than in *L. affinis*; scapulars and secondaries similarly tipped with white; all the primaries white at their extremities; shafts of the principal quills dark brown; the three outer quills dark greyish brown—hardly to be termed black—on their outer webs, paler on the contiguous subterminal portions of their inner webs; the first white for more than 2 inches apically, or crossed above the tip by a narrow dark bar which fades with the age of the feather; the 2nd quill with a white subterminal spot on the outer web, and a corresponding patch of white—but not a complete mirror—on the inner web, confluent with the usual grey 'wedge' which descends from the base of the inner web; 3rd quill transversely barred with blackish brown, with a white termination to the grey wedge of the inner web; 4th similar, but the white more defined and the upper portion of the outer web lead-colour; 5th and 6th similar, but lead-colour on both webs with merely a dark subterminal bar; the upper quills grey, tipped with white. In less mature birds there is no spot on the 2nd quill. Bill rich yellow, with the usual red spot at the genys; tarsi and toes "dark reddish violet-grey" (*Stejneger*). Total length 24 to 25 inches, culmen about 2·8, wing 17·5 to 18, tail 7·5 to 8, tarsus 2·75, middle toe with claw 2·75.

The *female*, as usual, is smaller, and has a less robust bill.

Adult in winter. Similar, but streaked about the head and neck.

Immature. Similar, but remains of dark brown mottlings on the wing-coverts and inner secondaries; rectrices with an irregular mottled subterminal brownish band; quills dull brownish, without any mirrors, but otherwise the general disposition of pattern is much as in the adult.

Young. Clove-brown, with darker streaks on the head and neck,

dark centres and buffish-white margins to the feathers of the mantle; rectrices nearly uniform brown, with only a little marbling at the bases and on the outermost; primaries brown, paler on their inner webs; edge of the wing and coverts almost unmottled greyish brown; under surface brown, the tail-coverts striated: bill dark horn-colour, paler at the base: tarsi and toes reddish brown.

Obs. Examples from Northern Japan and the Amurland coast are decidedly darker than birds from the Kuril Islands. The specimen from Hakodadi, which I formerly identified with *L. marinus*, is quite as dark on the mantle as average examples of that species, and at the time I was not aware that *L. marinus* had a mirror on the 2nd primary while still immature. Now that a series is available for examination, I consider that *L. schistisagus* has no close affinity with *L. marinus*, but rather inclines to the Herring-Gull section.

Hab. Bering Sea, Okhotsk Sea, and North Pacific down to Northern Japan in winter. Headquarters appear to be about the Kuril Islands.

a. Ad. sk.; *b–e*. ♂ ♀ ad. sk.	Kuril Islands (*H. J. Snow*).	Capt. Blakiston [P.].
f. ♀ imm. sk.	Kuril Islands, June 1 (*H. J. Snow*).	Seebohm Coll.
g. Ad. sk.	Mouth of the Amur, May 21 (*Dr. L. Schrenck*).	Seebohm Coll.
h. ♂ ad. sk.	Hakodadi, N. Japan (*Capt. Blakiston*).	Seebohm Coll.
i. ♀ juv. sk.	N. Japan (*Admi. H. St. John*).	Tweeddale Coll.

32. Larus argentatus.

Le Goiland cendré, *Brisson, Orn.* vi. p. 160, pl. xiv. (1760); *Daubent. Pl. Enl.* pl. 253 (1786).

Le Goiland varié ou le Grisard, *Brisson, Orn.* vi. p. 167, pl. xv. (1760).

Larus argentatus, *Brünn. Orn. Bor.* p. 44, no. 149 (1764: Christiansöe); *Gm. Syst. Nat.* i. p. 600 (1788: *ex Brünn.*); *Bonn. Encyc. Méth.* i. p. 83 (1790); *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 40 (1816); *Temm. Man. d'Orn.* 2me éd. p. 764 (1820); *E. Sabine, Parry's 1st Voy.*, App. p. cciv (1821: North Georgian Is., black wing-markings); *Boie, Isis*, 1822, p. 562; *Meyer, Zusät. Taschenb.* iii. p. 195 (1822); *Brehm, Beitr. Vogelk.* iii. p. 770 (1822); *id. Lehrb.* p. 710 (1824); *J. Sabine, Franklin's Journ.*, App. p. 695 (1823: Hudson Bay, black wing-patches); *Richards. Parry's 2nd Voy., Suppl.* p. 358 (1825: Winter Id., N. of Melville Pen., typical); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 191 (1826); *J. C. Ross, Parry's 3rd Voy., Suppl.* p. 104 (1826: typical); *Werner, Atlas, Palmipèdes*, pl. 16 (1828); *Bp. Ann. Lyc. N. Y.* ii. p. 360 (1828); *Vieill. Faune Franç., Ois.* p. 393 (1828?); *Fleming, Brit. Anim.* p. 140 (1828); *Kaup Natürl. Syst.* p. 58 (1829); *Selby, Brit. B.* ii. p. 504, pls. xcvi. & xcvi.* (1833); *Nuttall, Man. Orn.* ii. p. 304 (1834); *Jenyns, Man. Brit. Verteb.* p. 276 (1835); *Audub. Orn. Biogr.* iii. p. 588 (1835); *Eyton, Cat. Brit. B.* p. 53 (1833); *Gould, B. Eur.* v. pl. 434 (1837); *Bp.*

Comp. List B. Eur. & N. Amer. p. 63 (1838); *Audub. Synop.* p. 328 (1839); *Temm. Man. d'Orn.* 2me éd. 4me pte. p. 470 (1840); *Naum. Vög. Deutschl.* x. p. 379, tab. 266 (1840); *Schinz, Eur. Faun.* p. 379 (1840); *Keys. & Blas. Wirb. Eur.* p. xcvi & p. 244 (1840); *Macgill. Man. Brit. Orn.* pt. ii. p. 246 (1842); *Selys-Longch. Faun. Belge*, p. 154 (1842); *Audub. B. N. Amer.* 8vo ed. vii. p. 163, pl. 448 (1844); *Schl. Rev. Crit.* p. cxxiv (1844); *Giraud, B. Long Isl.* p. 357 (1844); *Gray, List B. Brit. Mus.*, Anseres, p. 169 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 588 (1845); *Gray, Gen. B.* iii. p. 654, pl. 180. fig. 5 (1846); *Hewits. Eggs Brit. B.* ii. p. 445, pl. cxxvii. (1846); *Degl. Orn. Eur.* ii. p. 306 (1849); *Thomps. B. Irel.* iii. p. 356 (1851); *Macgill. Brit. B.* v. p. 544 (1852); *Kjærb. Danm. Fugle*, p. 339, tab. xlii. & *Suppl.* tab. xxiii. figs. 1, 2 (1852); *Licht. Nomencl. Av.* p. 99 (1854: partim); *Schl. Vog. Nederl.* p. 598, pls. 347, 348 (1854); *Meyer, Brit. B.* vii. p. 153, pl. 309 (1857); *Gundl. J. f. O.* 1857, p. 236 (Cuba); *Baird, Cass., & Lawr. B. N. Amer.* p. 844 (1858); *Bartlett, P. Z. S.* 1859, p. 467 (remarkable return to. Zool. Gdns.); *Lawr. Ann. Lyc. N. Y.* vii. p. 275 (1860: Cuba); *Reinhardt, Ibis*, 1861, p. 17 (Greenland, very rare); *Schl. Dier. Nederl. Vogels*, p. 236 (1861); *Blakist. Ibis*, 1861, p. 10 (Hudson Bay); *Gray, Cat. Brit. B.* p. 232 (1863); *Schl. Mus. P.-Bas*, Lari, p. 16 (1863); *Sundev. Sv. Fogl.* pl. 50. figs. 1-3 (1863?); *Degl. & Gerbe, Orn. Eur.* ii. p. 417 (1867); *Holtz, J. f. O.* 1868, p. 124 (Gottland, breeds); *Borggr. Vogelf. Norddeutschl.* p. 143 (1869); *Dall & Bann. Tr. Chic. Acad.* i. p. 305 (1869: Alaska); *Fritsch, Vög. Eur.* p. 474 tab. 54. fig. 12 (1870); *Saunders, Ibis*, 1871, p. 400 (Strs. Gibraltar, winter only); *R. Gray, B. West Scotl.* p. 487 (1871); *Allen, Bull. Harv. Coll.* ii. p. 366 (1871: Florida); *G. R. Gray, Hand-l. B.* iii. p. 113, no. 10968 (1871); *Sel. & Salv. P. Z. S.* 1871, p. 576 (Cuba); *Harting, Handb. Brit. B.* p. 77 (1872); *Coues, Key N. Amer. B.* p. 312 (1872); *Gould, B. Gt. Brit.* v. pl. 59 (1873); *Palmén, Finlands Fogl.* p. 591 (1873); *Dresser, B. Eur.* viii. p. 399, pl. 602. fig. 2 (1873); *Collett, Forh. Selsk. Chr.* 1873, p. 292 (N. Norway); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873); *Alston & H-Br. Ibis*, 1873, p. 52 (Archangel); *Durnf. Ibis*, 1874, p. 402 (North Frisian Is., breeding); *Coues, B. N.-West*, p. 625 (1874); *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Newton, Arct. Man.* p. 106 (1875); *Irby, Orn. Strs. Gibr.* p. 214 (1875); *Collett, Nyt Mag. Naturv.* 1877, p. 209 (Norway); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 64 (1878: Galveston, Texas); *Saunders, P. Z. S.* 1878, p. 167 (revision Larinæ); *id. Journ. Linn. Soc.* xiv. p. 395 (1878: distribution); *Kumlien, Bull. U.S. Nat. Mus.* no. 15, p. 99 (1879: Cumberld. Sd., up to 67° N., breeding); *R. Anderson*, apud *Feilden, Zool.* 1879, p. 7 (Pr. Albert Ld.); *Rodd, B. Cornwall*, p. 172 (1880); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Irby, Ibis*, 1883, p. 189 (Santander in Nov., abundant); *Coues, Key N. Amer. B.* 2nd ed. p. 743 (1884); *B. O. U. List Brit. B.* p. 188 (1884); *Tristr. Faun. & Flor. Palest.* p. 137 (1884: Tyre, in winter); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 618 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 255 (1884); *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 131 (1885: St. Petersb.); *Seebohm, Brit. B.* iii. p. 326 (1885); *Homeyer, Ornis*, 1885, p. 80; *Lütken, t. c.* p. 145 (Denmark); *D. Torre & Tsch. t. c.* p. 560 (Aust.-Hung.); *Albarda, t. c.* p. 629 (Holland); *Schneider, op. cit.* 1887, p. 551 (Upp. Alsace); *Booth, Rough Notes*, iii. (1887); *Ridgw. Man. N. Amer. B.* p. 30 (1887);

H-Brown & Buckl. Faun. Sutherl. &c. p. 232 (1887); *iid. Faun. Outer Hebr.* p. 146 (1888); *Taczan. Ornis*, 1888, p. 507 (Poland); *Cory, B. West Indies*, p. 276 (1889: Cuba and Bahamas, winter); *id. B. Bahamas*, p. 239 (1890); *Saunders, Man. Brit. B.* p. 657 (1889); *Radde & Walter, Ornis*, 1889, p. 125 (Krasnovodsk, in winter: typical); *Riesenth. Wasservög. Mitteleur.* p. 133 (1889); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 63 (1889); *Stevenson & Southw. B. Norfolk*, iii. p. 339 (1890); *Keller, Orn. Carinthiæ*, p. 301 (1890); *Buckl. & H-Br. Faun. Orkney Is.* p. 232 (1891); *Jäckel & Blas. Vög. Bayerns*, p. 361 (1891); *Gätke, Vogelw. Helyol.* p. 570 (1891); *Borrer, B. Sussex*, p. 267 (1891); *Macphers. Faun. Lakeland*, p. 428 (1892); *Hartert, Ibis*, 1892, p. 521 (East Prussia); *H-Br. & Buckl. Faun. Argyll &c.* p. 191 (1892); *D'Urban & Math. B. Devon*, p. 375 (1892); *Lilford, Col. Figs. Brit. B.* pt. xxiii. (1893); *A. Dubois, Vertebr. Belg., Ois.* ii. p. 590, pl. 293 (1894); *Mathew, B. Pembrokesh.* p. 104 (1894); *Collett, Nyt Mag. f. Naturv.* Bd. xxxv. p. 307 (1894: Norway); *Ussher, Pr. R. Irish Ac.* (3) iii. p. 410 (1894); *Pearson & Bidw. Ibis*, 1894, p. 236 (N.E. Norway); *Irby, 2nd ed. Orn. Strs. Gibr.* p. 300 (1895).

Larus varius, *Brünn. Orn. Bor.* p. 45, no. 150 (1764: Iceland and Christiansöe).

The Herring Gull (ad.) *and* The Brown and White Gull (juv.), *Pennant, Brit. Zool.* p. 141 (1766).

Goéland à Manteau gris, *Buff. Hist. Nat. Ois.* viii. p. 406, pl. xxxii. (1783).

Larus fuscus (*nec Linn.*), *Penn. Brit. Zool.* 2nd ed. ii. p. 131 (1788); *Bonn. Encyc. Méth.* i. p. 82 (1790); *Bechst. Naturg. Deutschl.* ii. p. 818 (1791); *Mont. Orn. Dict.* i. (1802).

Herring Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 371 (1785); *Bewick, Brit. B.* ii. p. 196, and *Suppl.* p. 30 (1821); *Yarr. Brit. B.* iii. p. 468 (1843).

Larus marinus, var. *β*, *Lath. Ind. Orn.* ii. p. 814 (1790).

Larus glaucus, *Retz.* (*nec Brünn., nec Fabr.*), *F. Suec.* i. p. 156 (1800); *Meyer & Wolf, Taschenb.* ii. p. 471 (1810); *Benicken, N. Ann. Wetterau*, iii. p. 138 (1811); *Meisner & Schinz, Vög. Schweiz*, p. 268 (1815); *Temm. Man. d'Orn.* p. 493 (1815); *Koch, Syst. baicr. Zool.* p. 372 (1816); *Nilss. Orn. Suec.* p. 167 (1817).

Larus cinereus, *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 40 (1816).

Larus argenteus, *Boie, Isis*, 1822, p. 562; *Brehm, Beitr. Vogelk.* iii. p. 781 (1822); *id. Lehrb.* p. 712 (1824); *Macgill. Mem. Wern. Soc.* v. p. 264 (1824); *Licht. Nomencl. Av.* p. 99 (1854).

Larus argentatoides, *Brehm, Beitr. Vogelk.* iii. pp. 791, 799 (1822); *id. Lehrb.* p. 713 (1824); *Bp. Ann. Lyc. N. Y.* ii. p. 360 (1828); *Swains. & Richards. Faun. Bor.-Amer., Birds*, p. 417 (1831: Melville Penins., breeding); *Schinz, Europ. Faun.* i. p. 380 (1840); *L. H. Meyer, Ill. Brit. B.* iv, pl not numbered (1843); *Gray, Hand-l. B.* iii. p. 113, no. 10972 (1871: Repulse Bay); *R. Anderson*, apud *Feilden, Zool.* 1879, p. 7 (Pr. Albert Ld.: a pale example).

Larus argentaceus, *Brehm, Lehrb.* p. 710 (1824).

Laroides major, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 738 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 349 (1855).

Laroides argentatus, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 740 (1831); *id. Naum.* 1855, p. 294; *Gray, List Gen.* p. 78 (1840); *id. op. cit.* ed. 1841, p. 99; *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 218 (1857); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 55 (1886).

Laroides argenteus, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 741 (1831); *id. Naum.* 1855, p. 294.
Laroides argentatoides, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 742 (1831); *id. Naum.* 1855, p. 294; *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 218 (1857 : N. America).
Laroides argentaceus, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 742 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 349 (1855); *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 218 (1857 : N. France); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 60 (1886).
Laroides americanus, *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 743 (1831); *id. Naum.* 1855, p. 294.
Glaucus argentatus, *Bruch, J. f. O.* 1853, p. 101.
Glaucus argentatoides, *Bruch, J. f. O.* 1853, p. 101 (N. America).
Larus marinus, *Lembeye, Av. Cuba*, p. 122 (1850: cf. *Gundl. J. f. O.* 1871, p. 291); *Gundl. J. f. O.* 1857, p. 236 (cf. *Lawr. Ann. Lyc. N. Y.* vii. p. 275).
Larus smithsonianus, *Coues, Pr. Philad. Acad.* 1862, p. 296 (N. America); *Gundl. Orn. Cuba*, p. 308 (1876).
Larus (Laroides) argentatus, *Droste, Vogelw. Borkum*, p. 346 (1869).
Larus argentatus smithsonianus, *Coues, Key N. Amer. B.* p. 312 (1872); *id. Bull. U.S. Geol. Surv.* iv. p. 655 (1878: Montana); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Coues, Check-list N. Amer. B.* p. 120 (1882); *id. Key N. Amer. B.* 2nd ed. p. 743 (1884); *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1884: Labrador); *A. O. U. Check-l. N. Amer. B.* p. 89 (1886); *Everm. Auk*, 1886, p. 88 (Ventura, Cala., abundant); *Seton, t. c.* p. 147 (W. Manitoba, breeds); *Ridgw. Man. N. Amer. B.* p. 31 (1887); *Cooke, Migr. B. Mississippi Vall.* p. 55 (1888); *Thompson, Pr. U.S. Nat. Mus.* xiii. p. 468 (1890: Manitoba, breeds); *Shufeldt, Auk*, 1891, p. 366 (fossil, Oregon); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 418 (1891: breeds along Arctic Amer.); *Rhoads, Auk*, 1893, p. 71 (Wash. Terr. & Brit. Columbia); *Allen, t. c.* p. 125 (distribution); *White, t. c.* p. 222 (Lake Michigan, breeds).
Einalia argentata, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890).

Adult male in breeding-plumage. Head, neck, tail, and underparts white; the ring round the eye white or very pale yellow; mantle and wing-surface French-grey, with broad white tips to the scapulars and secondaries, making a conspicuous alar bar; all the primaries tipped white; outermost quill blackish from the base downwards (save a narrow grey wedge on the inner web), with a white tip 2·5 in length in mature birds, and a narrow black bar which divides the white into tip and "mirror" in the majority; 2nd quill blackish for about 0·4 on both sides of the shaft, with a black subterminal bar, a white mirror, and, on the inner web, a broad grey wedge which sometimes breaks through and joins the mirror; 3rd quill greyish basally, blackish on the lower part of outer web and on the subterminal bar, grey on the inner web, passing into white at the apex of the wedge: 4th similar, but grey on both webs above the bar; 5th quill similar, but bar narrower; 6th grey, without a bar in mature birds and with a narrow bar in others; the remaining quills grey, with white tips. In less mature birds there is no mirror on the 2nd quill. Bill yellow, red at the angle of the genys; iris straw-colour; tarsi and toes

flesh-colour (drying ochre-yellow). Total length about 24 inches, culmen 3, wing 17·5, tail 7·5, tarsus 2·5, middle toe with claw 2·6.

The *female* is smaller than the male, but, irrespective of sex, there is great individual variation.

Adult in winter. Like the above, but with brownish-grey streaks on the head and neck.

Young and *Immature.* In the first autumn the upper parts are streaked and mottled with brown and greyish buff; quills dark umber, with paler inner webs and whitish tips to most; rectrices similar, but more or less mottled with whitish at the bases of the two or three outer pairs; feathers of the upper tail-coverts brown, with buffish-white tips; underparts nearly uniform brown at first, but afterwards brownish grey, mottled: bill blackish, paler at the base of the lower mandible. The second autumn the head is nearly white, streaked with greyish brown; the upper parts are barred with brown on a greyish ground, though no pure grey feathers have yet made their appearance on the mantle; quills paler; tail more mottled with white at the bases of all the feathers. In the third autumn the feathers of the mantle are chiefly grey, with some brownish streaks down the shafts; a faint sub-apical spot begins to show on the outermost primary; the tail-coverts are partly white, and the dark portion of the rectrices is much broken up; underparts nearly white. In the fourth autumn the sub-apical patch on the first primary is larger, and the quills from the 5th upwards are banded with black and tipped with white; tail-feathers white, slightly vermiculated with brown: bill greenish yellow basally, reddish black at the angle. At the moult of the fifth autumn all brown markings are lost, the primaries have white tips, black bars and grey wedges, though the proportion of dark colouring in the quills is greater than it is in older birds.

Nestling. Greyish buff, variably streaked and spotted with blackish on the upper parts and throat.

Considerable variation exists in the tint of the upper parts in this species; birds from France being dark, while Northern examples are as a rule paler. This is especially the case as regards the primaries, in some of which the dark portion of the pattern is hardly more than deep lead-colour, as in an example obtained by Mr. E. W. Nelson at Chicago on March 27, in which, moreover, the mirror on the 2nd quill unites with the grey wedge of the inner web. The frequent absence of this mirror on the 2nd primary in American birds has been made one of the principal distinctions for *Larus argentatus smithsonianus*, but many American birds have this white spot. The explanation which has been given of this is that "European birds frequently cross the Atlantic"; in which case they have reached Chicago, and even Prince Albert Land, beyond 110° W. long. and 70° N. lat., for a specimen from that locality is the counterpart of the Chicago example! American birds of the first year are, however, darker as a rule than European examples, though there is much variation in this respect, even in young obtained in the same locality and on the very same day.

Hab. Northern Europe from the White Sea westward, the Atlantic Region to Iceland and down to the north of France (breeding); Greenland, Baffin Bay, Melville Peninsula, Prince Regent Inlet, North Georgian or Parry Islands, and Prince Albert Land (breeding). Southwards, along the coasts and on the inland waters of North America down to nearly 40° S. on the Atlantic (breeding). In winter as far as the Bermudas, Cuba, and Mexico; also, on the Pacific side, from the mouth of the Yukon to Southern California. On the European side, to the Mediterranean basin, Black Sea and Caspian, in winter.

a, *b*. Juv. st.	Gt. Britain.	Purchased.
c–*e*. ♀ ad. et ♂ vix ad. sk.	St. Bride's Bay, S. Wales, April & Dec.	Hon. W. Edwardes [P.].
f–*h*. Pull. sk.	Lundy Isl., Bristol Channel, June (*H. S.*).	H. Saunders Coll.
i. Ad. st.	Cornwall.	Mr. Vingoe [C.].
k–*q*. ♂ ♀ ad. et juv. sk.	Fowey, Aug. 26, Sept. 2.	Dr. A. Günther [P.].
r. Ad. st.	Torquay.	C. Coningham, Esq. [P.]
s. Juv. sk.	Christchurch, Hants, Nov.	Hume Coll.
t–*v*. ♀ ad. et juv. sk.	Pagham, Sussex, Aug., Sept.	R. B. Sharpe, G. E. Shelley, & H. Saunders Colls.
w, *x*. Ad. sk.	Eastbourne, April, May.	Shelley Coll.
y. Juv. sk.	Romney Marsh, March.	R. B. Sharpe, Esq. [P.].
z. Juv. sk.	Bury St. Edmonds, Suffolk, Dec.	M. E. Loft, Esq. [P.].
a'. ♂ juv. sk.	Yarmouth, Sept.	H. Saunders Coll.
b'. Ad. sk.	Flamborough Head.	Lord Londesborough [P.].
c'. Imm. st.	Sutherlandshire.	C. Coningham, Esq. [P.].
d'–*h'*. Ad. et pull. st.	Hebrides.	T. Walker, Esq. [P.].
i'. Ad. sk.	Orkneys, summer (*Hubbard*).	Salvin-Godman Coll.
k'–*m'*. ♂ ♀ ad. et pull. sk.	Orkneys, June (*Dunn*).	H. Saunders Coll.
n'–*s'*. Ad., imm., et pull. st.	Hill of Hoy, Orkneys (*Dunn*).	Purchased.
t'. Imm. sk.	Shetlands (*Col. H. W. Feilden*).	H. Saunders Coll.
u'. Pull. st.	Shetlands.	Purchased.
v'–*x'*. ♂ ♀ ad. et pull. st.	Mousa, Shetlands, June.	Lt. C. H. Bruce, R.N. [P.].
y'. Juv. sk.	Great Britain.	J. Sabine, Esq. [P.].
z'. Ad. sk.	Great Britain.	Col. Montagu [C.].
a''. ♂ ad. sk.	Havre, Jan. (*V. Pluche*).	H. Saunders Coll.
b''. Juv. sk.	Havre, France, Nov. (*V. Pluche*).	Seebohm Coll.
c'', *d''*. Pull. st. et sk.	Denmark.	J. Gould, Esq. [C.].
e'', *f''*. ♂ ♀ ad. sk.	Christiansund, Norway, June (*H. Seebohm*).	Seebohm & H. Saunders Colls.

g'', *k''*. ♀ ad. et juv. sk.	Bodö, N. Norway, June (*H. Seebohm*).	Seebohm & H. Saunders Colls.
i''. Juv. sk.	Greenland.	Hume Coll.
k''. Ad. sk.	Repulse Bay, S. of Melville Peninsula.	Dr. J. Rae [P.].
l''. Ad. sk.	North-land Expedition.	Sir G. Back, R.N. [P.].
m'', *n''*. Juv. sk.	Fort Chimo, Ungava Bay, North Labrador, Sept. 18, 1882 (*L. M. Turner*).	Salvin-Godman Coll.
o''. ♂ ad. sk.	Labrador (*H. F. Möschler*).	H. Saunders Coll.
p''. Imm. st.	Godbout, Prov. Quebec (*N. A. Comeau*).	Salvin-Godman Coll.
q''. Vix ad. sk.	St. Lawrence River, Canada.	Shelley Coll.
r''. ♂ ad. sk.	Grand Manan Isl., Bay of Fundy, June (*J. H. Batty*).	H. Saunders Coll.
s''. Ad. sk.	Halifax, Nova Scotia.	Capt. S. G. Reid [P.].
t''. ♂ juv. sk.	Boston Harbour, Mass., Nov.	Salvin-Godman Coll.
u''. Ad. sk.	Long Island, New York.	H. Saunders Coll.
v''. ♂ juv. sk.	Sing-Sing, Hudson River, New York, Dec. (*A. Fisher*).	Salvin-Godman Coll.
w''. Ad. sk.	Washington, D.C., winter.	Salvin-Godman Coll.
x'', *y''*. ♀ ad. sk.	Chicago, Illinois, March (*E. W. Nelson*).	Salvin-Godman Coll.
z'', a^3–c^3. ♂ ♀ ad.; d^3. ♂ juv. sk.	Corpus Christi, Texas, Jan. Mar., July, Nov. (*F. B. Armstrong*).	Salvin-Godman Coll.
e^3. Juv. sk.	Brazos, Mouth of Rio Grande del Norte.	Salvin-Godman Coll.
f^3. Juv. sk.	Bermudas, Nov.	Capt. S.G.Reid, R.A. [P.].
g^3, h^3. Ad. et juv. sk.	West Coast of Mexico.	H. Saunders Coll.
i^3–o^3. ♂ ♀ ad., ♂ ♀ imm., et ♂ juv. sk.	Ventura, California, Nov. (*Henshaw*).	Salvin-Godman Coll.
p^3. Juv. sk.	"Loring Park" (*Henshaw coll.*).	Salvin-Godman Coll.
q^3. Ad. st.; r^3. Ad. sk.	Prince Albert Land (*Dr. R. Anderson, H.M.S. 'Enterprise'*).	Capt. Collinson, R.N. [P.].
s^3. Skeleton.	England.	Purchased.
t^3. Sternum.	England.	John Ray, Esq. [P.].
u^3. Sternum.		
v^3. Skull.		

33. Larus cachinnans.

Larus cachinnans, *Pallas, Zoogr. Rosso-Asiat.* ii. p. 318 (1811: Caspian, and Volga to Lake Baikal); *Keys. & Blas. Wirb. Eur.* p. xcvi and p. 245 (1840); *Bp. Cat. Ucc. Eur.* p. 79 (1842); *Schl. Rev. Crit.* p. cxxiv (1844); *Mühle, Orn. Griechenl.* p. 143 (1844); *Gray, Gen. B.* iii. p. 654 (1846); *Brandt, Lehmann's Reis. n. Buchara*, p. 331 (1852: Caspian); *Heugl. Syst. Uebers.* p. 69 (1856: Egypt and Red Sea); *Lindcrm. Vög. Griechenl.* p. 176 (1860); *Heugl. in Peterm. Mitth.* 1861, p. 29 (Red Sea); *Shelley, B. Egypt*, p. 306 (1872); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2,

p. 1392 (1873); *Dresser's transl. Severtz. Turkest. Jevotn.*, *Ibis*, 1876, p. 415; *Tacz. Bull. Soc. Zool. Fr.* 1876, p. 263 (Daüria and L. Baikal); *Hume, Str. F.* viii. p. 115 (1879); *Giglioli, Ibis*, 1881, p. 219 (Italy); *Severtzoff, Ibis*, 1883, p. 77 (Tashil-kul, Pamirs: end of August); *Seebohm* (*Henke*), *Ibis*, 1882, p. 230 (N. Caspian); *Saunders, Ibis*, 1884, p. 391 (S.W. France); *Whitehead, Ibis*, 1885, p. 47 (Corsica); *Sharpe, Ibis*, 1886, p. 168 (Muscat); *Giglioli, Avif. Ital.* p. 432 (1886); *Salvadori, Ucc. Ital.* p. 286 (1887); *Seeb. Ibis*, 1887, p. 351 (Madeira and Canaries); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 57 (1888: Turkestan); *Reid, Ibis*, 1888, p. 79 (Tenerife); *Meade-Waldo, Ibis*, 1889, p. 5 (Canaries); *Giglioli*, 1° *Resoc. Av. Ital.* p. 646 (1889), 2° *Resoc.* p. 654 (1890), 3° *Resoc.* p. 513 (1890); *Meade-Waldo, Ibis*, 1893, p. 206 (Canaries).

Larus argentatus (*nec Gm.*), *Savi, Orn. Tosc.* iii. p. 55 (1831); *Bruch, Isis*, 1832, p. 1107 (Dalmatia); *Dickson & Ross, P. Z. S.* 1839, p. 135 (Erzeroum); *Crespon, Orn. Gard*, p. 483 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 279 (1840); *Mühle, Orn. Griechenl.* p. 142 (1844); *Rüpp. Syst. Uebers.* p. 138 (1845: Egypt); *Licht. Nomencl. Av.* p. 99 (1854: as regards Senegal); *Heugl. Syst. Uebers.* p. 69 (1856: Egypt and Red Sea); *Hartl. Orn. W.-Afr.* p. 251 (1857: Senegal); *Jaub. & B.-Lapomm. Rich. Orn. M. France*, p. 390 (1859); *Linderm. Vög. Griechenl.* p. 175 (1860); *Radde, Reis. Sibir., Vög.* p. 383 (1863: partim); *Schl. Mus. P.-Bas*, Lari, p. 17 (1863: partim); *Wright, Ibis*, 1864, p. 151 (Malta); *Antin. Cat. descr. Ucc.* p. 114 (1864: Damietta); *Tristr. P. Z. S.* 1864, p. 454 (Palestine); *Filippi, Viagg. Persia*, p. 352 (1865); *Blas. J. f. O.* 1865, p. 380 (part.); *Godman, Ibis*, 1866, p. 103 (Azores); *Bocage, Jorn. Soc. Lisb.* 1868, pp. 149 and 330 (Angola); *Doderl. Avif. Sicil.* p. 234 (1869); *Godman, Azores*, p. 39 (1870); *Shelley, B. Egypt*, p. 305 (1872); *Godman, Ibis*, 1872, p. 222 (Canaries and Madeira); *Hume, Yarkand Exped., Zool.* p. 299 (1873: Kashmir); *id. Str. Feath.* 1873, p. 270 (Scind); *id. op. cit.* 1874, p. 50 (Saugor I., Hoogli); *Blanf. East. Persia*, ii. p. 290 (1876); *Finsch, Verh. z.-b. Wien*, xxix. p. 272 (1879: Saisan-Nor); *Radde, Orn. Cauc.* p. 475 (1884); *Alléon, Ornis*, 1886, p. 422 (Dobrudscha, breeding, "legs yellow"); *Tait, Ibis*, 1887, p. 395 (Portugal, breeding).

"Larus argentatoides, *Bp.*" (*nec Brehm*), *apud Temm. Man. d'Orn.* 2me éd. 4me pte. p. 470 (1840: Italy).

Larus leucophæus, *Licht. Nomencl. Av.* p. 99 (1854: Arabia; descr. nulla *); *Salvad. Cat. Ucc. Sard.* p. 129 (1864); *Finsch, Tr. Zool. Soc.* vii. p. 302 (1870: Red Sea); *Finsch & Hartl. Vög. Ost-Afr.* p. 818 (1870); *Salvad. Faun. Ital. Ucc.* p. 293 (1872); *Shelley, B. Egypt*, p. 304 (1872); *Dresser, B. Eur.* viii. p. 411, pl. 602. fig. 1 (1873); *Severtz. Turkest. Jevotn.* p. 70 (1873); *Brooke, Ibis*, 1873, p. 347 (Sardinia); *Scl. Ibis*, 1874, p. 100 (Mogador: same bird as his *L. fuscescens*, P. Z. S. 1867); *Wright, Ibis*, 1874, p. 228 (Malta); *Irby, Orn. Strs. Gibr.* p. 215 (1875); *Taylor, Ibis*, 1878, p. 373 (Egyptian coast); *Irby, Ibis*, 1883, p. 189 (Santander in summer, but rare in winter); *Tristr. Faun. & Flor. Palest.* p. 137 (1884); *Lilford, Ibis*, 1889, p. 349 (Cyprus); *Radde & Walter, Ornis*, 1889, p. 125 (Krasnovodsk); *Ogilvie Grant, Ibis*, 1890, p. 444 (Madeira); *Sharpe, Ibis*, 1891, p. 115 (Fao Persian Gulf).

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* Type in Berlin Mus. examined.

Glaucus michahellesii, *Bruch, J. f. O.* 1853, p. 101 (Dalmatia).
Glaucus leucophæus, *Bruch, J. f. O.* 1853, p. 101 (Red Sea).
Laroides leucophæus, *Bp. Naumannia*, 1854, p. 212; *id. Consp. Av.* ii. p. 219 (1857); *id. C. R.* xlii. p. 219 (1857: Mediterranean); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 63, note (1886).
Larus epargyrus, *Licht. Nomencl. Av. Mus. Berol.* p. 99 (1854) [type examined].
Laroides michahellesii, *Bruch, J. f. O.* 1855, p. 282; *Brehm, Naum.* 1855, p. 294; *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 219 (1857: Mediterranean).
Laroides cachinnans, *Bruch, J. f. O.* 1855, p. 282; *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 61 (1886).
Dominicanus fuscescens, *Bruch, J. f. O.* 1853, p. 100 (part.) (S.E. Europe).
Larus michahellesi, *Erhard, Faun. Cykladen*, pp. 45 and 62 (1858); *Torre & Tschusi, Ornis*, 1885, p. 560 (Adriatic).
Larus fuscescens, *Scl. P. Z. S.* 1867, p. 315 (Mogador); *id. Rev. List Vert. Zool. Gdns.* p. 316 (1872); *Taylor, Ibis*, 1867, p. 72 (Alexandria).
Laroides argentatus, *Loche, Expl. Sc. Algér., Ois.* ii. p. 179 (1867).
[?] Larus heuglini, *Bree, 2nd ed. B. Eur.* v. p. 58 (1876).
Larus marinus, *Finsch, Ibis*, 1877, p. 53 (West Siberia; cf. *Verh. z.-b. Wien*, xxix. p. 272).

Adult in breeding-plumage. Very similar to the preceding, from which, in fact, it differs only in the following particulars:—The ring round the eye is bright orange-red, the gape is the same colour, the yellow and red of the bill are much brighter, the tarsi and toes are brilliant yellow; the mantle is, as a rule, decidedly darker, while the black and grey on the primaries show a deeper tone, and the middle toe with the nail is usually rather shorter than the tarsus. Total length about 23 inches, culmen 2·95, wing 18, tail 7·5, tarsus 2·75, middle toe with claw 2·65.

The *female* is smaller than the male, as a rule.

Adult in winter. As in summer: the usual greyish striations being absent, or so faint as to be practically invisible.

Immature, Young, and *Nestling.* As in *L. argentatus.* The tarsi and toes are at first flesh-coloured, but they soon begin to show a yellowish tint in the live bird, though this is, of course, lost in preserved specimens.

Hab. Southern Europe, from the Gulf of Gascony downwards; Madeira (probably the Azores), the Canaries, and the opposite coast of Africa; the entire basin of the Mediterranean, the Black Sea, the Aral, the Caspian and eastward to Lake Baikal (breeding). In winter to India, from the Bay of Bengal to Bombay; the Mekran coast; Persia; the Red Sea; and down the west side of Africa, apparently to Angola.

a, b. Ad. sk.	Tenerife, Canaries, March (*G. E. Shelley.*).	H. Saunders Coll.
c, d. ♂ ad.; *e, f.* ♀ ad.; *g.* Pull. sk.	Great Salvage Is., April 28, 1895.	W. R. Ogilvie Grant, Esq. [P.].
h. ♂ imm. sk.	Madeira, May.	W. R. Ogilvie Grant, Esq. [P.].

i. ♂ ad. sk.	Off Valencia, S.E. Spain (*R. Martin*).	H. Saunders Coll.
k, l. Pull. et juv. sk.	Columbretes Is., May & June (*R. Martin*).	H. Saunders Coll.
m. ♀ ad. sk.	Ajaccio, Corsica, Jan. (*C. B. Wharton*).	H. Saunders Coll.
n. Ad. sk.	Capri, off Naples, Feb.	H. Saunders Coll.
o. Ad. sk.	Tunis.	L. Fraser [C.].
p, q. ♂ ad. et imm. sk.	Lower Egypt, Feb. (*G. E. S.*).	Shelley Coll.
r. Juv. sk.	Lower Egypt, Jan. (*Lord Winchilsea*).	H. Saunders Coll.
s–v. ♂ ♀ ad. et juv. sk.	Echinades, off Missolonghi, June (*H. Seebohm*).	Seebohm and H. Saunders Colls.
w–y. ♀ imm. sk.	Croatian coast, April.	Prof. Brusina [P.].
z. ♂ ad. sk.	Babadagh, Dobrudscha, June.	H. Saunders Coll.
a′. Pull. sk.	Astrachan, June (*Möschler*).	H. Saunders Coll.
b′. ♂ ad. sk.	South Volga, May (*Möschler*).	H. Saunders Coll.
c′. Ad. sk.	South Ural (*Taczanowski*).	H. Saunders Coll.
d′–f′. ♂ ♀ ad. et juv. sk.	River Tigris, near Babylon, winter (*Jones*).	India Museum [P.].
g′, h′. Vix ad. et imm. sk.	Bagdad, winter.	Kenneth Loftus, Esq. [P.].
i′–m′. ♂ ♀ ad., imm., et juv. sk.	Fao, Persian Gulf, Sept.–Oct.	W. D. Cumming, Esq. [P.].
n′. Juv. sk.	Muscat, winter.	Col. Mills [P.].
o′–r′. ♂ ♀ ad. et juv. sk.	Gwadar. Mekran coast, Dec. & Feb.	Hume and Blanford Colls.
s′, t′. ♀ juv. sk.	Karachi, Sind, Feb.	Hume Coll.
u′, v′. ♀ ad. et ♂ juv. sk.	Sukkur, Sind, Nov., Dec.	Hume Coll.
w′–y′. ♀ ad. et ♀ vix ad. sk.	Kushmore, Upper Indus, Dec. (*A. O. H.*).	Hume Coll.
z′. ♂ ad. sk.	Bhawulpur, Sind, Jan.	E. W. Oates, Esq. [C.].
a″–e″. ♂ et juv. sk.	Mehur, Upper Sind, Jan. (*A. O. H.*).	Hume Coll.
f″–m″. ♂ ♀ ad., vix ad., et imm. sk.	Larkhana, Upper Sind, Jan.	Hume Coll.
n″. ♀ juv. sk.	Kandahar, S. Afghanistan, Jan. (*Sir O. St. John*).	Hume Coll.
o″, p″. ♂ ad. et ♀ juv. sk.	Gurgaon, March (*A. O. H.*).	Hume Coll.
q″. ♀ juv. sk.	Sutlej, Punjab, Nov. (*A. O. H.*).	Hume Coll.
r″. ♀ ad. sk.	Delhi, Jan.	Hume Coll.
s″. ♀ juv. sk.	Allahabad, Feb.	Hume Coll.
t″. ♀ juv. sk.	Eastern Bengal (*J. Biddulph*).	Tweeddale Coll.
u″. ♂ juv. sk.	Bombay harbour, Feb.	Hume Coll.
v″, w″. Ad. et juv. sk.	Kashgar.	India Museum [P.].
x″. ♀ ad. sk.	Saisan-Nor, Turkestan, June.	Dr. O. Finsch [C.].
y″. ♂ ad. sk.	Lake Baikal, May (*Dybowski*).	H. Saunders Coll.

34. Larus vegæ.

Larus argentatus, *Middend. Reis. Sibir., Zool.* p. 242 (1851 : part.); *Swinh. Ibis*, 1861, p. 345; *Radde, Reis. Sibir., Vög.* p. 383 (1863:

part.); ? *Dall & Bann. Tr. Chic. Acad.* i. p. 305, no. 181 (1869: Up. Yukon); *Bunge, Mél. Biol.* xii. livr. i. p. 47 (1884: Lena delta).

Larus argentatus, var. cachinnans, *Schrenck, Reis. Amurl.* i. p. 504 (1859).

Larus fuscus, *Swinh. Ibis*, 1860, p. 68 (Amoy).

[?] Glaucus borealis, *Bruch, J. f. O.* 1853, p. 101 (? *ex Brandt*) *.

[?] Laroides borealis, *Bp. Naum.* 1854, p. 212; *Bruch, J. f. O.* 1855, p. 282; *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 219 (1857).

? Larus ichthyaetus, *Cassin, in Perry's U.S. Expl. Exped.* p. 232 (1858: Japan, juv.).

Larus occidentalis (*nec Aud.*), *Swinh. P. Z. S.* 1863, p. 326 (Amoy); *Whiteley, Ibis*, 1867, p. 210 (Japan); *Harting, P. Z. S.* 1871, p. 122 (Choris Penins., Voy. 'Plover'); *Swinh. t. c.* p. 421; *id. Ibis*, 1875, p. 140 (Cheefoo); *Prjev. in Rowley's Orn. Misc.* iii. p. 109 (1878: S.E. Mongolia on migr.); *David & Oustal. Ois. Chine*, p. 520 (1878); *H. H. Slater, Ibis*, 1882, p. 436 (Hankow); *Swinh. Ibis*, 1863, p. 428 (Formosa); *id. P. Z. S.* 1863, p. 327 (Amoy); *id. Ibis*, 1870, p. 366 (Hainan); *Gray, Hand-l. B.* iii. p. 113, part. (1871); *id. P. Z. S.* 1871, p. 421.

? Larus borealis, *Baird, Tr. Chic. Acad.* i. p. 321 (1869); *Dall & Bann. t. c.* p. 305, no. 182 (Alaska); *Gray, Hand-l. B.* iii. p. 113 (1871: Kamtschatka); *Tacz. Bull. Soc. Zool. Fr.* 1876, p. 263; *id. op. cit.* 1882, p. 397 (Kamtschatka).

Larus argentatus, *d.* borealis, *Coues, B. N.-West*, p. 626 (1874).

Larus cachinnans, *Saunders, P. Z. S.* 1878, p. 169 (partim); *David & Oustal. Ois. Chine*, p. 519 (1878); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Nelson, Cruise 'Corwin,'* p. 107, no. 152 (1883); *Seebohm, Ibis*, 1884, p. 270 (Kiukiang); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 240 (1884: Pacific coast); *A. O. U. Check-l. N. Amer. B.* p. 89 (1886); *Ridgw. Man. N. Amer. B.* p. 30 (1887); *Gigl. & Salvad. P. Z. S.* 1887, p. 592 (Vladivostok and Corea); *Taczan. op. cit.* 1888, p. 485 (Corea); *Seeb. Ibis*, 1890, p. 105 (Bonin Is.); *id. B. Japan. Emp.* p. 291 (1890); *Styan, Ibis*, 1891, p. 508 (Lower Yangtse); *Seeb. Ibis*, 1892, p. 96 (Tsu-sima Is., Japan); *De la Touche, Ibis*, 1892, p. 501 (Foochow &c., winter); *Hartl. Abh. Ver. Bremen*, xii. Heft ii. p. 334 (1892: Pakhoi); *Seeb. Ibis*, 1893, p. 53 (Loo-choo Is.).

Larus affinus (*sic*), *Nelson, Cruise 'Corwin,'* p. 107 (1883).

Larus argentatus, var. vegæ, *Palmén, Vega-Exped., Vetensk.* Bd. v. p. 370 (1887) †; *Taczan. Mém. Acad. Pétersb.* xxxix. p. 1028 (1893: E. Siberia coast).

Larus vegæ, *Stejn. Auk*, 1888, p. 310 (critical); *Seebohm, Ibis*, 1889, p. 349 (Gt. Liakoff Is., *Bunge*); *Saunders, Bull. Brit. Orn. Cl.* no. xv. p. xxiv (1894).

Adult male in breeding-plumage. Differs from *L. cachinnans* in the colour of its tarsi and toes, which are pale flesh-colour, and

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* Fasc. i. of Brandt's 'Descr. et Icon. Anim. Ross. Nov.,' Aves, was published at St. Petersburg in 1836; but it does not appear that the letterpress of fasc. ii. was ever published, although some copies of a plate lettered iv. fig. 1, *Larus borealis*, were distributed, and the late Prof. Schlegel had one of them. Brandt's bird may be *L. schistisagus*.

† For the use of a translation of Professor Palmén's admirable 'Report on the Birds of the 'Vega' Expedition' I am indebted to Mr. Seebohm.

the mantle is, perhaps, of a darker and bluer grey. Total length about 24 inches, culmen 2·9, wing 18, tail 7·75, tarsus 2·75, middle toe with claw 2·6.

The *female* is smaller and less robust.

Adult in winter. Similar, but the head and neck streaked with ash-brown, as in *L. argentatus*.

Immature and *Young* go through the same phases as the two preceding species.

Hab. Arctic coast of Siberia, from the Taimyr Peninsula eastward, including the Liakoff Islands, to both sides of Bering Strait and Sea, but chiefly along the Asiatic side, Kamtschatka, the Sea of Okhotsk, &c.; southward by Japan and China coasts as far as Formosa and the Bonin Islands in winter.

Obs. It will be seen that *L. argentatus*, *L. cachinnans*, and *L. vegæ* are very closely allied. There appears, however, to be a somewhat important break of continuity: *L. argentatus* stopping at the White Sea, and no large Gull with black-patterned primaries being found to the eastward, till the Taimyr Peninsula is reached.

a. ♂ juv. sk.	South-west Manchuria.	H. M. James, Esq. [P.].
b. Imm. sk.	Chefoo, N. China, Jan. (*Commr. S. J. Muggeridge*).	H. Saunders Coll.
c. Imm. sk.	Shanghai, March (*R. Swinhoe*).	Seebohm Coll.
d. Juv. sk.	Kiukiang, Yangtse, Nov.	F. W. Styan, Esq. [P.].
e–g. Ad., imm., et juv. sk.	Poyang Lake, Yangtse, Jan.	F. W. Styan, Esq. [P.].
h–o. Ad., imm., et juv. sk.	Amoy, Jan.–March (*R. S.*).	Seebohm and H. Saunders Colls.
p. ♀ imm. sk.	Chichi-shima, Peel Isd., April.	Seebohm Coll.
q. ♂ ad. sk.	Tsu-shima, Corea Channel, Feb. (*P. A. Holst*).	Seebohm Coll.
r, *s*. Ad. et juv. sk.	Nagasaki, S. Japan.	F. Ringer, Esq. [P.].
t–v. ♂ ad.; *w*, *x*. ♀ imm.; *y*. Juv. sk.	Yedo Gulf, Japan, Jan.–March (*Admiral St. John and G. Stephen*).	H. Saunders Coll.
z, *a'*. Ad. sk.	Yokohama, Japan (*H. Pryer*).	Capt. Blakiston and Seebohm Colls.
b'. Ad. sk.	Kobe, Japan, March (*Snow*).	H. Saunders Coll.
c'. ♂ vix ad. sk.	Hakodati, May.	Capt. Blakiston [P.].
d'. ♀ juv. sk.	Yezo (*Admiral St. John*).	Tweeddale Coll.
e'. ♂ ad. sk.	Mouth of the Amur.	Seebohm Coll.
f'. Juv. sk.	"N.W. coast America."	Capt. Kellett, R.N. [P.].

35. Larus audouini.

? Larus quadricolor, *Scop. Ann.* i. *Hist. Nat.* p. 81 (1769).

Larus atricilla (*nec Linn.*), *Natt.* (part.), *Temm. Man. d'Orn.* p. 779 (1820); cf. *Schl. Rev. Crit.* p. 114 (1844).

Larus audouini, *Payraudeau, Ann. Sci. Nat.* viii. p. 462 (1826); *Werner, Atlas, Palmipèdes*, pl. 23 (1828); *Temm. Pl. Col.* livr. 480 (1829); *Gould, B. Eur.* v. pl. 438 (1837); *Bp. Comp. List B.*

Eur. & N. Amer. p. 63 (1838); *Schinz, Eur. Faun.* p. 380 (1840); *Keys. & Blas. Wirb. Eur.* p. xcvi & p. 243 (1840); *Temm. Man. d'Orn.* 2me éd. 4me pte. p. 475 (1849); *Schl. Rev. Crit.* p. cxxv (1844); *Gray, List B. Brit. Mus.*, Anseres, p. 170 (1844: Strs. Bonifacio); *id. Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 311 (1849); *Levaill. Expl. Sc. Algér.* pl. 13 (1850); *Brehm, Naum.* 1855, p. 294; *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 392 (1859); *Powys, Ibis*, 1860, p. 356 (Corfu); *Linderm. Vög. Griechenl.* p. 177 (1860); *Schl. Mus. P.-Bas*, Lari, p. 22 (1863); *Salvad. Ucc. Sard.* p. 129 (1864); *Bree, B. Eur.* iv. p. 92, cum tab. (1866); *Degl. & Gerbe, Orn. Eur.* ii. p. 420 (1867); *E. C. Taylor, Ibis*, 1867, p. 72 (Nile: [seen only]); *Doderl. Avif. Sicil.* p. 235 (1869); *Gray, Hand-l. B.* iii. p. 113, no. 10967 (1871); *Salvad. Faun. Ital., Ucc.* p. 293 (1871); *Saunders, Ibis*, 1871, p. 400 (S. Spain); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1387 (1873: Nile, *fide* E. C. Taylor [?]); *Lilford, Ibis*, 1875, p. 31 (I. of Toro); *Irby, Orn. Strs. Gibr.* p. 214 (1875); *Bree, B. Eur.* 2nd ed. v. p. 62 (1876); *Dresser, B. Eur.* viii. p. 395, pl. 601. fig. 1 (1878); *Lilford, Ibis*, 1880, p. 480 (Arbolan; W. Mediterranean); *Giglioli, Ibis*, 1881, p. 219 (Sardinia and Elba); *Whitehead, Ibis*, 1885, p. 47 (Corsica); *Gigl. Avif. Ital.* p. 429 (1886); *Salvad. Ucc. Ital.* p. 285 (1887); *Lilford, Ibis*, 1887, pp. 274–5, 279–281 (Strs. Bonifacio); *Gigl.* 1° *Resoc. Av. Ital.* p. 645 (1889); *id.* 2° *Resoc. Av. Ital.* p. 654 (1890); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 299 (1895).

Larus payraudei, *Vieill. Faun. Franç., Ois.* p. 396, pl. 172. fig. 1 (1828).

Gavia audouinii, *Boie, Isis*, 1844, p. 191.

Glaucus audouini, *Bruch, J. f. O.* 1853, p. 102.

Gavina audouini, *Bp. Naum.* 1854, p. 212; *id. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 222 (1857); *Loche, Expl. Sc. Algér., Ois.* pt. ii. p. 182 (1867).

Laroides audouini, *Bruch, J. f. O.* 1855, p. 282; *Brehm, Naum.* 1855, p. 294.

Adult male in breeding-plumage. Head, tail, and under surface white; lower neck pale pearl-grey; mantle and rump somewhat darker pearl-grey; secondaries tipped with white, but not very broadly so; primaries with white tips, which increase in size inwards; the outermost quill chiefly black, with a small white subapical spot on the inner web; 2nd quill blackish; 3rd quill black, with a grey wedge on the inner web; 4th and 5th with grey basally on both webs and the black reduced to a bar; 6th with a narrow bar, incomplete in mature birds; upper quills grey, with broad white edges; under wing-coverts and sides of breast pearl-grey: bill coral-red, banded with black in front of the angle, tip yellow; tarsi and toes olive-green (drying lead-colour). Total length about 20 inches, culmen 2·4, wing 16, tail 6, tarsus 2·3, middle toe with claw 1·9.

There appears to be no noticeable difference in the size of the *female*.

Immature in February. Similar, but the head and neck streaked with greyish brown; the secondaries with dark centres to the outer webs; no white spot on the outermost primary, and the grey of the 4th and 5th quills dull and mottled; a black spot remaining

near the tip of the 4th tail-feather from the outside: bill dull yellow, with a black band reaching to behind the angle; tarsi and toes paler than in the adult. No earlier state of plumage is known to me.

Hab. Western Mediterranean, chiefly within the Tyrrhenian Sea, but as far as the Straits of Gibraltar and a little outside. A thorough "sea" gull, nesting on rocky islets.

a. Ad. sk.	Corsica.	Riocour Coll.
b. Ad. st.	Straits of Bonifacio.	Purchased.
c. ♀ ad. sk.	Maddalena I., Strs. Bonifacio, May 3, 1882 (*Lord Lilford*).	H. Seebohm Coll.
d, *e*. ♂ ♀ ad. sk.	Spargi I., Strs. Bonifacio, May 13 (*Lord Lilford*).	Lord Lilford [P.].
f. ♀ ad. sk.	Spargi I., Strs. Bonifacio, May 13 (*Lord Lilford*).	H. Saunders Coll.
g. ♂ imm. sk.	Palermo, Sicily, Feb. 1866 (*Doderlein*).	H. Saunders Coll.

36. Larus delawarensis.

Larus delawarensis, *Ord*, *Guthrie's Geogr.*, 2nd Amer. ed. ii. p. 319 (1815: Delaware R.); *Baird, Cass., & Lawr. B. N. Amer.* p. 846 (1858); *Coues, B. N.-West*, p. 636 (1874); *Baird, Mex. Bound. Surv.* p. 27 (1859); *Cooper & Suckley, N. H. Wash. Terr.* p. 273 (1860); *Wheeler, Rep. Exp. & Surv. W. of* 100*th Mer.* p. 485 (1876); *Blakiston, Ibis*, 1862, p. 10 (Saskatchewan); *Allen, Bull. Harv. Coll.* ii. p. 366 (1871: Florida); *id. Bull. Harv. Coll.* iii. p. 183 (1873: Gt. Salt Lake); *Ridgw. Ann. Lyc. N. Y.* x. p. 391 (1874: Illinois); *Coues, Key N. Amer. B.* p. 313 (1872); *id. Check-l.* no. 548 (1873); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 317 (1874: Mazatlan); *Hensh. Ann. Lyc. N. Y.* xi. p. 13 (1874: Utah); *id. Rep. Zool. Expl.* 100*th Merid.* p. 485 (1885); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 51 (1876: Tehuantepec); *Ridgw. Rep. Surv.* 40*th Par.* p. 638 (1877); *Reid, Zoolog.* 1877, p. 489 (Bermuda, once); *Sennett, Bull. U.S. Geol. Surv.* iv. p. 64 (1878: Galveston); *Coues, t. c.* p. 655 (Dakota); *Saunders, P. Z. S.* 1878, p. 176 (revision Larinæ); *Henshaw, Rep. Surv.* 1879 *W. of* 100*th Merid.* p. 331 (1880); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Maynard, B. East. N. Amer.* p. 485 (1881); *Coues, Check-l. N. Amer. B.* 1882, p. 21; *Ridgw. Cat. B. Fish. Exhib.* p. 31 (1883); *Coues, Key N. Amer. B.* 2nd ed. p. 745 (1884); *S. G. Reid, Bull. U.S. Nat. Mus.* no. 25, p. 266 (1884: Bermuda); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 244 (1884); *Drew, Auk*, 1885, p. 18 (Colorado); *Hensh. t. c.* p. 232 (Caia.); *A. O. U. Check-l. N. Amer. B.* p. 90 (1888); *Feilden, Tr. Norw. Soc.* iv. p. 351 (1887: Hudson Bay); *Ridgw. Man. N. Amer. B.* p. 32 (1887); *Cooke, Rep. B. Migr. Mississippi Vall.* p. 56 (1888); *Thomps. Pr. U.S. Nat. Mus.* xiii. p. 468 (1890: Manitoba).

Larus canus (part.), *Bp. Specchio Comp.* p. 69 (1827); *id. Ann. Lyc. N. Y.* ii. p. 359 (1828).

Larus argentatoides (*nec Brehm*), *Bp. Ann. Lyc. N. Y.* ii. p. 360 (1828: New York).

Larus zonorhynchus, *Richardson, Faun. Bor.-Amer., Birds*, p. 421 (1831); *Nutt. Man. Orn.* ii. p. 300 (1834); *Bp. Comp. List*, p. 63 (1838); *Audub. Orn. Biogr.* iii. p. 98 (1835), v. p. 638 (1839); *id.*

Synopsis, p. 327 (1839); *id. B. Am.* 8vo ed. vii. p. 152, pl. 446 (1844); *Giraud, B. Long Isl.* p. 360 (1844); *Gray, List B. Brit. Mus.*, Anseres, p. 171 (1844); *id. Gen. B.* iii. p. 654 (1846); *Licht. Nomencl. Av.* p. 99 (1854); *Bp. C. R.* xlii. p. 771 (1856); *id. Consp. Av.* ii. p. 224 (1857); *Gundl. J. f. O.* 1857, p. 236 Cuba); *Schl. Mus. P.-Bas*, Lari, p. 22 (1863); *Blasius, J. f. O.* 1865, p. 380; *Gray, Hand-l. B.* iii. p. 111, no. 10949 (1871).

"Glaucus occidentalis," *Bruch* (*nec Audub.*), *J. f. O.* 1853, p. 101, taf. ii. fig. 20 (California).

Glaucus zonorhynchus, *Bruch, J. f. O.* 1853, p. 102.

Gavina zonorhynchus, *Bp. Naum.* 1854, p. 212; *Bruch, J. f. O.* 1855, p. 282.

Gavina bruchi, *Bp. Naum.* 1854, p. 212; *Bruch, J. f. O.* 1855, p. 283.

Laroides occidentalis, *Bruch* (*nec Audubon*), *J. f. O.* 1855, p. 282.

Larus bruchi, *Bp. C. R.* xlii. p. 771 (1856).

Larus zonorhynchus, *a.* mexicanus, *Bp. Consp. Av.* ii. p. 224 (1857).

Larus zonorhynchus, *b.* bruchi, *Bp. Consp. Av.* ii. p. 224 (1857).

Adult male in breeding-plumage. Head, neck, tail, and entire underparts white; mantle pearl-grey (much as in pale examples of *L. argentatus*); scapulars faintly tipped with white, and secondaries more broadly so; outermost primary mostly black externally, but whitish on the basal portion of the inner web, and with an elongated white subterminal mirror on both webs (though the shaft is black), then a black bar, and the extreme tip white; 2nd quill with rather more of a white tip, a smaller and rounder mirror barely touching the outer web, and a grey wedge occupying the greater part of the inner web; 3rd quill without a mirror, more white at the tip and grey on the greater part of both webs; 4th and 5th chiefly grey passing into white, barred with black, and tipped with white; 6th without a bar in mature birds, or with a very small imperfect one; upper quills grey with white extremities: bill greenish yellow, with a subterminal black zone and a yellow tip; gape and orbital ring orange-red to vermilion (in life); iris pale yellow; tarsi and toes greenish yellow. Total length 18·5 inches, culmen 2, wing 14·5 to 15, tail 6·25, tarsus 2·2, middle toe with claw 1·8.

Adult female similar, but rather smaller.

Adult in winter plumage. Like the above, but streaked with brownish grey on the crown and upper neck.

Young. Upper parts streaked and mottled with rather pale brown, the feathers of the mantle broadly tipped with buffish white; secondaries grey basally, with dark centres and whitish borders; the two outer primaries dark brown; the 3rd, 4th, and 5th similar but tipped with white, and showing grey basally on the inner webs, increasing ascendingly; in the rest of the quills the grey gradually increases till the dark portion is reduced to an imperfect bar; tail-coverts white, with brown arrow-headed markings; rectrices white, with a subterminal dark brown bar and whitish tips; underparts dull white, thickly streaked and mottled with ash-brown on the throat and sides, with smaller and fainter spots on the breast and abdomen: bill yellowish brown basally, blackish terminally; tarsi and toes brownish.

A year later grey feathers appear on the mantle, the band on the rectrices breaks up, the primaries from the 4th upwards show grey wedges, and the underparts are white; but the head continues to be thickly streaked, while the neck and shoulders display bold ashy spots: bill yellow, basally.

Immature. Head slightly streaked; mantle grey, with a few brown feathers remaining about the bend of the wing; outer primary with an indication of a white spot; rectrices white, with bold blackish subterminal spots, the remains of the band. The next year there is a distinct spot on each outermost primary and the tail is nearly pure white, but the under wing-coverts are still mottled with brown. The dark colour on the primaries decreases with age, as in other species, until the mature stage is reached.

Hab. Mainland of North America; not breeding southward of Nova Scotia on the east side or Utah on the west. In winter on both coasts, down to Mexico; occasionally in Cuba and once in Bermuda. Chiefly an inland species during the breeding-season, frequenting lakes and marshes.

a. Imm. st.	Northern Expedition.	Sir J. Richardson [P.]. (Type of *L. zonorhynchus.*)
b. Ad. sk.	Attipella Bay, Labrador, June (*A. Lechevallier*).	H. Saunders Coll.
c. ♀ juv. sk.	Godbout, Mouth of St. Lawrence, Oct. (*N. A. Comeau*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Milford, Connecticut, April (*Henshaw Coll.*).	Salvin-Godman Coll.
e. Ad. sk.	Coney Island, New York (*Marshall*).	H. Saunders Coll.
f. ♂ imm. sk.	Detroit, Michigan (*Maynard*).	H. Saunders Coll.
g. Ad. sk.	Ohio (*Marshall*).	H. Saunders Coll.
h. Juv. sk.	Indian River, E. Florida, April (*Maynard*).	H. Saunders Coll.
i. Juv. sk.	Cedar Cays, W. Florida, Jan. (*Maynard*).	H. Saunders Coll.
k–q. ♂ ♀ ad.; *r.* Juv. sk.	Corpus Christi, Texas, Nov., Jan.–Feb. (*F. B. Armstrong*).	Salvin-Godman Coll.
s. ♀ ad. sk.	Santa Ana, near Guadalajara, West Mexico, Nov. (*W. Lloyd*).	Salvin-Godman Coll.
t, u. ♂ ♀ ad. sk.	Presidio, West Mexico, Jan.–Feb. (*A. Forrer*).	Salvin-Godman Coll.
v, w. ♂ ♀ ad. sk.	Guaymas, N.W. Mexico, Dec. (*Gervase Mathew, R.N.*).	H. Saunders Coll.
x–z. ♂ ♀ vix ad.; *a'.* Juv. sk.	San Diego, Lower California, April (*L. Belding*).	Salvin-Godman Coll.
b', c'. ♂ ad. et ♀ juv. sk.	San Diego, Lower California, Dec. (*Henshaw Coll.*).	Salvin-Godman Coll.
d'. ♀ juv. sk.	Ventura, Cala., Nov. (*Henshaw Coll.*).	Salvin-Godman Coll.
e'. Juv. sk.	San Francisco Bay (*F. Gruber*).	H. Saunders Coll.
f'. Juv. sk.	Washoe Lake, Nevada, Aug. 31 (*H. W. Henshaw*).	Salvin-Godman Coll.
g'. Juv. sk.	49th Parallel, Aug. 1874.	North American Boundary Comm.

37. Larus californicus.

Larus californicus, *Lawr. Ann. Lyc. N. Y.* vi. p. 79 (1854); *Baird, Cass., & Lawr. B. N. Am.* p. 846 (1858); *Coues, Pr. Philad. Acad.* 1862, p. 300; *Elliot, New & Unfig. B. N. Amer.* ii. pl. 52 (1869); *Coues, B. N.-West,* p. 634 (1874); *Hensh. Ann. Lyc. N. Y.* xi. p. 13 (1874: Utah); *Lawr. Bull. U.S. Nat. Mus.* iv. p. 51 (1876: Tehuantepec); *Ridgw. Rep. Surv. 40th Par.* p. 637 (1877); *Henshaw, Rep. Surv. 1879 W. of 100th Merid.* p. 331 (1880); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Coues, Check-l. N. Amer. B.* p. 121 (1882); *Ridgw. Cat. B. Fish. Exhib.* p. 31 (1883); *Belding, Pr. U.S. Nat. Mus.* v. p. 549 (1883: Lower Cala.); *Coues, Key N. Amer. B.* 2nd ed. p. 745 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 242 (1884); *A. O. U. Check-l. N. Amer. B.* p. 90 (1886); *Ferrari-Perez, Pr. U.S. Nat. Mus.* ix. p. 179 (1886: South of Vera Cruz [?]); *Ridgw. Man. N. Amer. B.* p. 31 (1887); *Cooke, Rep. B. Migr. Mississippi Vall.* p. 56 (1888: Kansas, furthest east); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 418 (1891: Lower Anderson R., breeds); *Loomis, Pr. Calif. Acad.* v. p. 214 (1895).

Laroides californicus, *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 220 (1857).

Larus delawarensis, var. californicus, *Coues, Key N. Amer. B.* p. 313 (1872).

Adult male in breeding-plumage. Similar, but larger than *L. delawarensis*; mantle much darker and of a slate-grey; scapulars and secondaries more broadly tipped with white; the outer primaries with a larger proportion of black; the 1st quill chiefly black, with fully 2 inches of the terminal portion (including the shaft) white; the 2nd with a small grey wedge basally, a white mirror but a black shaft, a black subterminal bar and a white tip; the 3rd, 4th, and 5th black, with white tips and increasing grey on the basal portions, the apices of the wedges not passing into white; 6th with a narrow subterminal bar of black; the remaining quills grey with white tips: bill "bright yellow, with an irregularly shaped spot of intense carmine near tip of lower mandible and a spot or bar of black usually anterior to this on both mandibles, though sometimes obsolete" (*Henshaw*): orbital ring vermilion; iris hazel; tarsi and toes greenish. Total length 20 inches, culmen 2·25, wing 15 to 15·5, tail 6·5, tarsus 2·2, middle toe with claw 2·1.

The *female* is somewhat smaller than the male.

In birds which are less mature than the example described there is a narrow black subterminal bar on the first primary, and in the previous year there is no mirror on the 2nd primary.

Adult in winter. Like the above, but the head and upper neck streaked with greyish brown.

Young. Much darker brown throughout than the preceding species; no signs of grey on the secondaries nor on the basal portions of the inner primaries, the paler inner webs being merely dull brown; tail-coverts broadly and closely barred; rectrices almost entirely umber-brown, with some mottlings of greyish white on the outer feathers; the extreme tips dull white: bill brownish basally, black terminally; tarsi and toes brown.

Immature. A bird in its second August exhibits a fair proportion of grey in the mantle; the new feathers of the scapulars, secondaries, and wing-coverts mottled with grey and brown in an unusually minute manner: upper quills beginning to show a little grey at their bases; tail-feathers more uniform umber-brown than before, though the coverts are whiter; underparts whitish brown without any distinct spots: bill yellower at the base. The succeeding stages are unknown to me.

Nestling. Stone-grey, with scarcely a tinge of buff; head boldly marked with black; upper surface mottled with ash-brown.

Hab. Western North America, breeding chiefly on the lakes and rivers from the Lower Anderson to Utah; in winter along the Pacific coast to about 18° N. in Mexico; once as far east as Kansas.

a. Juv. sk.	North-west America.	Capt. Kellett and Lt. Wood, R.N. [P.].
b. Vix ad. sk.	Vancouver Island (*J. K. Lord*).	N. Amer. Boundary Commission.
c. ♂ ad. sk.	Esquimalt Island, Oct. (*G. Mathews, R.N.*).	H. Saunders Coll.
d. Ad. sk.	Yellowstone Lake, Aug. (*F. J. Huse*).	H. Saunders Coll.
e–g. ♀ ad., ♂ imm., et juv. sk.	Washoe Lake, Nevada, Aug. (*H. W. Henshaw*).	Salvin-Godman Coll.
h. ♂ juv. sk.	Tahoe Lake, California, Sept. 30 (*A. Forrer*).	Salvin-Godman Coll.
i. ♂ pull. sk.	Eagle Lake, California, July 4 (*H. W. Henshaw*).	Salvin-Godman Coll.
k. Juv. sk.	San Francisco, California (*F. Gruber*).	Salvin-Godman Coll.
l. ♀ ad. sk.	San Mateo, Cala., Oct. (*J. Hepburn*).	H. Saunders Coll.
m, n. ♂ ♀ ad. sk.	Ventura, Cala., Nov. (*Henshaw*).	Salvin-Godman Coll.
o. ♂ ad. sk.	San Diego, Cala., April (*L. Belding*).	Salvin-Godman Coll.

38. **Larus canus.**

The White Gull, *Albin, Nat. Hist. B.* ii. p. 77, pl. 94 (1740).

Grande Mouette cendrée, *Briss. Orn.* vi. p. 182, pl. xvi. fig. 2 (1760); *Buff. Hist. Nat. Ois.* viii. p. 425 (1783); *Daubent. Pl. Enl.* pl. 997 (1786).

Larus canus, *Brünn. Orn. Bor.* p. 43 (1764: Iceland); *Linn. Syst. Nat.* i. p. 224 (1766); *Scop. Ann.* i. p. 79 (1769); *P. L. S. Müll. S. N.* ii. p. 345 (1773); *Gm. S. N.* i. p. 596 (1788); *Retzius, Faun. Suec.* p. 158 (1790); *Lath. Ind. Orn.* p. 815 (1790); *Bechst. Naturg. Deutschl.* ii. p. 808 (1791); *Meyer & Wolf, Taschenb.* ii. p. 475 (1810); *Pallas, Zoogr. Rosso-Asiat.* p. 330 (1811); *Leisler, Nachtr. Deutschl.* p. 14 (1812); *Meyer, Vög. Liv- u. Esthl.* p. 232 (1815); *Temm. Man. d'Orn.* p. 498 (1815); *Meisner & Schinz, Vög. Schweiz,* p. 269 (1815); *Koch, Syst. baier. Zool.* p. 374 (1816); *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 40 (1816); *Nilss. Orn. Suec.* ii. p. 172 (1817); *Temm. Man. d'Orn.* 2me éd. p. 771 (1820); *Boie, Isis,* 1822, p. 563; *Meyer, Taschenb.* iii. *Zusätze,* p. 200 (1822); *Brehm, Lehrb.* p. 707 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 198 (1826); *Vieill. Faun. Franc., Ois.* p. 389 (1828?);

Werner, Atlas, Palmipèdes, pl. 24 (1828); *Fleming, Brit. An.* p. 140 (1828); *Kaup, Natürl. Syst.* p. 58 (1829); *Brehm, Isis*, 1830, p. 994; *Savi, Orn. Tosc.* iii. p. 59 (1831); *Ménétr. Cat. Rais. Cauc.* p. 55 (1832); *Selby, Brit. B.* ii. p. 490, pl. xciii. (1833); *Jenyns, Man. Brit. Vertebr.* p. 275 (1835); *Eyton, Cat. Brit. B.* p. 52 (1836); *Gould, B. Eur.* v. pl. 437 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Naum. Vög. Deutschl.* p. 301, pl. 261 (1840); *Crespon, Orn. Gard*, p. 485 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcvi & p. 244 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 280 (1840); *Selys-Longch. Faun. Belg.* p. 153 (1842); *Macgill. Man. Brit. Orn.* pt. ii. p. 248 (1842); *Bouteille, Orn. Dauph.* ii. p. 244 (1843); *Mühle, Orn. Griechenl.* p. 141 (1844); *Crespon, Faun. Mérid.* ii. p. 124 (1844); *Schl. Rev. Crit.* p. cxxv (1844); *Gray, List B. Brit. Mus.*, Anseres, p. 171 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 570 (1845); *Hewits. Eggs Brit. B.* ii. p. 441, pl. cxxv. (1846); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 313 (1849); *Thomps. B. Irel.* iii. p. 348 (1851); *Kjærb. Damn. Fugle*, p. 339, tab. xlii. (1852); *Macgill. Brit. B.* v. p. 575 (1852); *Schl. Vog. Nederl.* p. 599, pl. 349 (1854); *Licht. Nomencl. Av.* p. 69 (1854); *Heugl. Syst. Uebers.* p. 69 (1856: coast Egypt); *Bp. C. R.* xlii. p. 771 (1856); *id. Consp. Av.* ii. p. 223 (1857); *Meyer, Brit. B.* vii. p. 135, pl. 304 (1857); *Schrenck, Reis. Amurl.* p. 509 (1859); *Linderm. Vög. Griechenl.* p. 175 (1860); *Swinh. Ibis*, 1860, p. 68 (Amoy); *Powys, t. c.* p. 355 (Corfu, winter); *Schl. Dier. Nederl. Vogels*, p. 236 (1861); *Swinh. Ibis*, 1861, p. 345 (N. China); *Sundev. Sv. Fogl.* pl. 49. fig. 6 (1863); *Newton in S. B.-Gould's Iceland*, p. 418 (1863: one imm.); *Schl. Mus. P.-Bas*, Lari, p. 22 (1863); *Gray, Cat. Brit. B.* p. 233 (1863); *Radde, Reis. Sibir., Vög.* p. 387 (1863); *Salvad. Ucc. Sard.* p. 128 (1864); *Wright, Ibis*, 1864, p. 151 (Malta); *Degl. et Gerbe, Orn. Eur.* ii. p. 424 (1867); *Loche, Expl. Sc. Algér., Ois.* ii. p. 184 (1867); *Holtz, J. f. O.* 1868, p. 124 (I. of Gottland, breeds); *Borggr. Vogelf. Norddeutschl.* p. 143 (1869); *Doderl. Avif. Sicil.* p. 235 (1869); *Fritsch, Vög. Eur.* p. 476, tab. 55. fig. 7 & tab. 56. fig. 5 (1870); *Saunders, Ibis*, 1871, p. 400 (S. Spain); *Swinh. P. Z. S.* 1871, p. 420 (China); *Salvad. Faun. Ital., Ucc.* p. 202 (1872); *G. R. Gray, Hand-l. B.* iii. p. 111, no. 10945 (1871); *R. Gray, B. West Scotl.* p. 483 (1871); *Shelley, B. Egypt*, p. 305 (1872: Damietta); *Harting, Handb. Brit. B.* p. 77 (1872); *Gould, B. Gt. Brit.* v. pl. 60 (1873); *Palmén, Finl. Fogl.* p. 506 (1873); *Alston & H-Br. Ibis*, 1873, p. 52 (Archangel); *Brooke, t. c.* p. 347 (Sardinia); *Sharpe & Dresser, B. Eur.* viii. p. 381, pl. 600 (1873); *Heugl. Orn. N.O.-Afr.* Bd. ii. pt. 2, p. 1377 (1873: Nile up to Khartoum); *Severtz. Turkest. Jevotn.* p. 70 (1873), and *Dresser's transl. Ibis*, 1876, p. 415 (Aral to Balkash); *Durnford, Ibis*, 1874, p. 402 (N. Frisian Is.); *Irby, Orn. Strs. Gibr.* p. 214 (1875); *Blanf. East. Persia*, ii. p. 291 (1876: Bushire); *Seeb. & H-Br. Ibis*, 1876, p. 451 (Lower Petchora, breeds); *Collett, Nyt Mag. Naturv.* 1877, p. 208 (N. Norway); *Saunders, P. Z. S.* 1877, p. 799 (Japan); *David & Oust. Ois. Chine*, p. 517 (1878); *Saunders, P. Z. S.* 1878, p. 177 (revision Larinæ); *id. Journ. Linn. Soc.* xiv. p. 396 (distribution); *Müller, J. f. O.* 1879, p. 392 (Cyprus); *Seebohm, Ibis*, 1879, p. 161 (Yenesei, breeds); *Finsch, Verh. z.-b. Wien*, p. 273 (1879); *Rodd, B. Cornwall*, p. 169 (1880); *Brandt, J. f. O.* 1880, p. 253 (Finnish Is., breeds); *Saunders, Rep. Voy. 'Challenger,' Zool.* ii. *Birds*, p. 138 (1881: Japan); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 62 (1881: Labrador); *Seebohm (Henke), Ibis*, 1882, p. 230 (Kirghiz Steppes);

id. t. c. p. 386 (Archangel); *Salvin, Cat. Strickl. Coll.* p. 620 (1882); *Coues, Check-list N. Amer. B.* p. 121 (1882: Labrador); *B. O. U. List Brit. B.* p. 189 (1883); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 250 (1884: Labrador); *Tristr. Faun. & Flor. Palest.* p. 137 (1884); *Radde, Orn. Cauc.* p. 478 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 746 (1884: Labrador); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 613 (1884); *Bunge, Mél. Biol.* xii. livr. 1, p. 51 (1884); *Seebohm, Brit. B.* iii. p. 316 (1885); *Büchner, Beitr. Russ. Reiches,* (2) ii. p. 130 (1885: St. Petersburg); *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 76 (1885: Bering I.); *Homeyer, Ornis,* 1885, p. 80; *Lütken, t. c.* p. 145 (Denmark); *Torre & Tsch. t. c.* p. 561 (Austr.-Hung.); *Albarda, t. c.* p. 629 (Holland); *A. O. U. Check-l. N. Amer. B.* p. 90 (1886); *Taylor, Ibis,* 1886, p. 379 (Suez Canal); *Giglioli, Avif. Ital.* p. 428 (1886); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 76 (1886); *Alléon, Ornis,* 1886, p. 422 (Black Sea); *Winge, t. c.* p. 591 (Denmark); *Schneider, op. cit.* 1887, p. 551 (Up. Alsace); *Salvad. Uce. Ital.* p. 286 (1887); *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 123 (Bering I.); *Ridgw. Man. N. Amer. B.* p. 33 (1887); *Booth, Rough Notes,* iii. (1887); *H-Brown & Buckl. Faun. Sutherl.* p. 231 (1887); *iid. Faun. Outer Hebr.* p. 146 (1888); *Taczan. Ornis,* 1888, p. 507 (Poland); *Pleske, Mém. Acad. St. Pétersb.* (7) xxxvi. p. 57 (1888: Turkestan); *Saunders, Man. Brit. B.* p. 655 (1889); *Radde & Walter, Ornis,* 1889, p. 125 (Krasnovodsk, winter); *Winge, Ornis,* 1890, p. 379 (Lolland, Denmark, breeds); *Seebohm, B. Japan. Emp.* p. 293 (1890); *Stevenson & Southw. B. Norfolk*; iii. p. 335 (1890); *Saunders, Ibis,* 1891, p. 188 (Lake Léman); *Styan, t. c.* p. 508 (Lower Yangtse); *Gätke, Vogelw. Helgol.* p. 574 (1891); *Buckley & H-Br. Faun. Orkney Is.* p. 231 (1891); *iid. Faun. Argyll &c.* p. 190 (1892); *Campbell, Ibis,* 1892, p. 246 (Corea); *De La Touche, t. c.* p. 501 (Foochow and Swatow, winter); *Hartert, t. c.* p. 520 (East Prussia, winter); *D'Urban & Mathew, B. Devon,* p. 379 (1892); *Macphers. Faun. Lakeland,* p. 427 (1892); *Meade-Waldo, Ibis,* 1893, p. 206 (Canaries, rare); *Tacz. Mém. Acad. Pétersb.* xxxix. p. 1033 (1893); *Mathew, B. Pembrokesh.* p. 105 (1894); *Collett, Nyt Mag. Naturv.* Bd. xxxv. p. 306 (1894); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 298 (1895); *Pearson, Ibis,* 1895, p. 248 (Iceland, not breeding).

Larus maculatus, *Brünn.* (*nec Bodd.*) *Orn. Bor.* p. 44, no. 146 (1764: Copenhagen).

The Winter Mew, *Pennant, Br. Zool.* p. 142, pl. L. 2 (1766); *ibid.* ed. 2, p. 423 (1788).

Larus cinereus, *Scop. Ann.* i. *Hist. Nat.* p. 80 (1769).

Larus hybernus, *Tunst. Orn. Brit.* p. 3 (1771); *Gm. Syst. Nat.* i. p. 596 (1788); *Bp. C. R.* xlii. p. 771 (1856); *Bp. Consp. Av.* ii. p. 223 (1857); *Gray, Hand-l. B.* iii. p. 111, no. 10947 (1871).

The Common Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 378 (1785); *Bewick, Brit. B.* ii. p. 200 (1821); *Yarr. Brit. B.* iii. p. 452 (1843).

Larus procellosus, *Bechst. Orn. Taschenb.* p. 373 (1803).

Larus cyanorhynchus, *Meyer, Taschenb. Vög. Deutschl.* ii. p. 480 (1810); *id. op. cit.* ed. 1822, p. 200; *Koch, Syst. baier. Zool.* p. 375 (1816).

Larus niveus (*nec Bodd.*), *Pallas, Zoogr. Rosso-Asiat.* ii. p. 320, tab. lxxiv. (1811); *Bp. Rev. et Mag. Zool.* 1857, p. 58 (Perm); *id. Consp. Av.* ii. p. 224 (1857); *Swinh. Ibis,* 1862, p. 428 (Formosa); *id. P. Z. S.* 1863, p. 325; *Whiteley, Ibis,* 1867, p. 210 (Hakodadi); *Degl. & Gerbe, Orn. Eur.* ii. p. 426 (1867); *Swinh. Ibis,* 1870, p. 336 (Hainan); *id. P. Z. S.* 1871, p. 420; *id. Ibis,*

1874, p. 165 (Hakodadi); *id. op. cit.* 1875, p. 138 (Chefoo); *Severtz. J. f. O.* 1875, p. 185, no. 382 (Aral to Tianshan); *Tacz. Bull. Soc. Zool. Fr.* 1877, p. 263 (E. Siberia); *Prjev. in Rowley's Orn. Misc.* iii. p. 108 (1878); *David & Oust. Ois. Chine*, p. 518 (1878); *Tacz. Bull. Soc. Zool. Fr.* 1883, p. 341 (Kamtschatka); *Alléon, Ornis*, 1886, p. 422 (Black Sea).

Laroides procellosus, *Brehm, Isis*, 1830, p. 994; *id. Vög. Deutschl.* p. 750 (1831); *id. Naum.* 1855, p. 294.

Laroides canus, *Brehm, Isis*, 1830, p. 994; *id. Vög. Deutschl.* p. 752 (1831); *id. Naum.* 1855, p. 294.

Laroides canescens, *Brehm, Isis*, 1830, p. 994; *id. Vög. Deutschl.* p. 753 (1831); *id. Naum.* 1855, p. 294.

Larus canus, var. major, *Middend. Reis. Sibir., Zool.* p. 243, pl. xxiv. fig. 4 (1853).

Glaucus canus, *Bruch, J. f. O.* 1853, p. 102.

Glaucus lacrymosus, *Bruch* (*nec Licht.*), *J. f. O.* 1853, p. 102.

Larus heinei, *Homeyer, Naum.* 1853, p. 129.

Gavina kamtchatchensis, *Bp. Naum.* 1854, p. 212.

Gavina canus, *Bp. Naum.* 1854, p. 212; *Bruch, J. f. O.* 1855, p. 284.

Gavina kamtschatschensis, *Bp. Rev. et Mag. Zool.* (2) vii. p. 16 (1855).

Laroides lacrimosus, *Brehm, Naun.* 1855, p. 294.

Gavina heinei, *Bruch, J. f. O.* 1855, p. 283.

? Rissa nivea, *Bp. Cat. Parzudaki*, p. 11 (1855).

Larus canus *a.* farroensis, *Bp. Consp. Av.* ii. p. 223 (1857).

Larus canus *b.* islandicus, *Bp. Consp. Av.* ii. p. 223 (1857).

Larus camtschatkensis, *Bp. C. R.* xlii. p. 771 (1856); cf. *Rev. et Mag. Zool.* 1857, p. 58.

Xema canum, *Jaub. et B.-Lapomm. Rich. Orn. Midi Fr.* p. 393 (1859).

Larus delawarensis, *Coues, Pr. Philad. Acad.* 1861, p. 246 (Labrador); *Saunders, P. Z. S.* 1878, p. 177 (as regards Hakodadi, juv.).

Larus canus major, *Schleg. Mus. P.-Bas*, Lari, p. 26 (1863).

Larus suckleyi, *Schleg.* (*nec Lawr.*) *Mus. P.-Bas*, Lari, p. 27 (1863: Japan).

Larus audouini, *Tristram, P. Z. S.* 1864, p. 455; *id. Ibis*, 1868, p. 330 (Palestine); *A. B. Brooke, Ibis*, 1873, p. 34 (Savona: cf. *Giglioli, op. cit.* 1881, p. 218).

Larus (Gavina) canus, *Droste, Vogelw. Borkum*, p. 344 (1869).

Gavia cana, *Menzbier, Bull. Mosc.* lviii. no. 1, p. 136 (1883: Oka).

Larus kamtschatchensis, *Stejn. Bull. U. S. Nat. Mus.* no. 29, p. 73 (1885); *id. Pr. U.S. Nat. Mus.* 1887, p. 123 (Beriug I.).

Larus canus niveus, *Tacz. Mém. Acad. Pétersb.* xxxix. p. 1034 (1893: E. Siberia).

Adult male in breeding-plumage. Head, neck, tail, and entire underparts white; mantle bluish grey (decidedly darker than in typical *L. argentatus* in birds from North-western Europe, and slate-grey—as in *L. californicus*—in birds from Archangel eastward, with a perfect gradation of tint); secondaries broadly tipped with white; outermost primary black, paler at the base, with a white subterminal mirror about 2 in. long; 2nd black, with a grey basal wedge and smaller white mirror; 3rd black, with grey basally on both webs, and exceptionally a small subterminal white spot; 4th, 5th, and 6th quills chiefly grey, with black bars—which decrease ascendingly—and broad white tips; 7th quill grey with a white tip, and with a small dark spot on the outer web in all but very mature birds; the remaining quills white terminally and grey basally. Eastern

birds have the outer primaries darker throughout and the grey is less strongly contrasted than in Western examples, but the pattern never varies. Bill greenish yellow at the base, rich yellow terminally; iris golden brown, orbital ring vermilion; tarsi and toes greenish yellow. Total length 17 to 18·5 inches, culmen 1·85 to 2, wing 14 to 15, tail 5·75 to 6·25, tarsus 2·1 to 2·2, middle toe with the claw 1·75 to 2. These measurements represent the difference between an average Scottish bird and the largest examples in the collection, which are those from Japan and Corea.

Adult female. Like the male, but smaller.

Adult in winter plumage. Similar, but streaked and mottled with ash-brown on the head and upper neck; tarsi and toes olivaceous.

Young. Head and upper neck streaked with ash-brown, the cheeks and throat, however, are nearly white; lower neck rather darker brown; feathers of the mantle with brown centres and whitish edges; primaries chiefly sooty brown, with paler inner webs and whitish tips to the upper quills: tail-coverts white, sparsely mottled with brown; rectrices whitish basally, with a well-defined subterminal brown band 2 inches deep; flanks, under wing, and upper breast mottled with brown, but the centre of the abdomen and breast nearly white: bill yellowish at the base, black anteriorly; tarsi and toes brownish. By September of the very first year some pure grey feathers have begun to show on the mantle, and these continue to take the place of the brown feathers until the next general moult.

Immature (Feb., when about 20 months old). Head and neck streaked, and some brownish mottling on the upper wing-coverts, but the mantle bluish grey as in the adult, and the scapulars with pure white tips; secondaries chiefly white, but with some dark brown spots; outer primary with a long white mirror; well-defined greyish wedges on the inner webs of the 4th, 5th, and 6th quills; 7th and 8th slightly barred subterminally, and greyish above; the rest whitish; tail white, with some irregular blackish spots, the remains of the band: bill and tarsi olivaceous. At the next moult a white mirror appears on the 2nd primary, the pattern of the quills becomes well-defined, and, save for a few markings at the point of the wing and on the under coverts, the bird may be called adult. It breeds the next spring, when nearly three years old.

Nestling. Buffish grey, rather boldly spotted and streaked with black on the upper surface, and with a black spot at the base of the bill, apparently characteristic of this species.

Hab. Northern Europe and Asia down to about 53° N. (breeding); in winter to the Mediterranean basin, Nile valley, and Persian Gulf; on the Pacific side, from Kamtschatka to Japan and China; rare in Iceland; has once occurred in Labrador (a young bird).

a. Ad. sk.	England, winter [white spot on 3rd quill].	H. Saunders Coll.
b, *c*. Ad. et juv. sk.	Devonshire, winter.	Col. Montagu [P.].
d. Ad. st.	Torquay.	C. Coningham, Esq. [P.].

e. Ad. st.	Hayling Island.	J. B. Tyndale, Esq. [P.].
f. Ad. st.	Lancing, Sussex.	R. B. Sharpe, Esq. [P.].
g–n. ♂ ♀ juv.; *o*. Vix ad. sk.	Romney Marsh, Kent, Sept.	R. B. Sharpe, Esq. [P.].
p. ♀ juv. sk.	Romney Marsh, Kent, May.	R. B. Sharpe, Esq. [P.].
q–s. Imm. st.	Thames.	A. Cooper, Esq., R.A. [P.].
t. ♂ ad. sk.	Cookham, Berks, Dec.	R. B. Sharpe, Esq. [P.].
u–w. ♂ ♀ ad. et ♀ juv. sk.	Harwich, Jan. 28. [The ♂ ad. has white spot on 3rd quill.]	H. Whitehead, Esq. [P.].
x. Juv. sk.	Walberswick, Suffolk, Feb. (*W. Tyler*).	H. Saunders Coll.
y. Juv. sk.	Redcar, Yorks., Jan. (*Biggins*).	H. Saunders Coll.
z, *a'*, *b'*. Pull. et ad. st.	Hebrides.	T. Walker, Esq. [P.].
c', *d'*. ♂ ♀ ad.; *e'*. Pull.; *f'*, *g'*. Vix ad. et juv. sk.	Orkneys, May, June, Sept. & Dec. (*J. H. Dunn*).	H. Saunders Coll.
h', *i'*. ♂ ♀ ad.; *k'–m'*. Pull. st.	Hills of Hoy, Orkneys, summer.	J. Baker [Purchased].
n', *o'*. ♂ ♀ ad.; *p'*, *q'*. Pull. st.	Mousa, Shetlands, June.	E. M. Nelson, Esq. [P.].
r'. ♀ vix ad. sk.	Vadsö, Norway, June (*H. S.*).	Seebohm Coll.
s'–x'. Ad. et juv. st.	Archangel (*Henke*).	R. B. Sharpe, Esq. [P.].
y', *z'*. ♂ ad.; *a''*. Pull. sk.	Lower Dwina, June (*Alston & Harvie-Brown*).	H. Saunders Coll.
b''. Juv. sk.	Fertö, Okka.	Hungarian Mus. [P.].
c''. ♀ juv. sk.	Damietta, Lower Egypt, Jan.	J. H. Gurney, Esq. [P.].
d'', *e''*. ♀ ad. et juv. sk.	River Kishon, Palestine, winter.	Canon Tristram [P.].
f''. ♂ juv. sk.	River Tigris, winter (*Jones*).	India Museum [P.].
g''. Juv. sk.	Fao, Persian Gulf, Feb.	S. Butcher, Esq. [P.].
h''. ♀ juv. sk.	Malo Atlim, River Ob, July.	Dr. O. Finsch [C.].
i''. ♂ ad. sk.	Yenesei River, 66° 30′ N., June (*H. Seebohm*).	H. Saunders Coll.
k''. ♂ ad. sk.	Yenesei River, 66° 30′ N., June (*H. S.*).	Seebohm Coll.
l''. ♂ imm. sk.	Petropaulovski, Kamtschatka, May.	Capt. Blakiston [P.].
m''. ♀ ad. sk.	Hakodadi, Japan (*Blakiston*).	Seebohm Coll.
n''. ♂ ad. sk.	Hakodadi, Japan, Dec. (*H. Whiteley*).	Tweeddale Coll.
o''. ♂ juv. sk.	Hakodadi, Japan, Dec. (*H. Whiteley*).	H. Saunders Coll.
p''. ♀ ad. sk.	Hakodadi, Japan.	Capt. Blakiston [P.].
q'', *r''*. Ad. sk.	Yokohama (*H. Pryer*).	Seebohm Coll.
s''. ♀ imm. sk.	Yokohama, Feb. (*G. Stephen*).	H. Saunders Coll.
t''. Ad. sk.	Yedo Bay, Japan (*Admiral H. St. John*).	Tweeddale Coll.
u'', *v''*. ♂ juv. sk.	Yedo Bay, Jan. (*Adml. H. St. John*).	H. Saunders Coll.

w''. ♂ juv. sk.	Yedo Bay, Japan, May.	H.M.S. 'Challenger' Exped.
x''. ♂ juv. sk.	Nagasaki, Japan, Feb.	F. Ringer, Esq. [P.].
y'', *z''*. ♂ ad. sk.	Corea.	C. W. Campbell, Esq. [P.].
*a*³, *b*³. ♀ ad. et imm. sk.	Shanghai, Jan. (*G. Stephen*).	H. Saunders Coll.
*c*³. Ad. sk.	Fokien.	J. Gould Coll.
*d*³–*f*³. Juv., imm., et ad. sk.	Amoy, Jan., Feb. (*R. Swinhoe*).	Seebohm Coll.
*g*³. Ad. sk.	Amoy, Mar. (*R. Swinhoe*).	H. Saunders Coll.
*h*³. Ad. sk.	Formosa.	R. Swinhoe, Esq. [P.].
*i*³–*l*³. Skeletons.	England.	Purchased.
*m*³. Sternum.	England.	John Ray, Esq. [P.].

39. Larus brachyrhynchus.

Larus canus, *Sw. & Rich.* (*nec Linn.*) *F. Bor.-Amer., Birds*, p. 420 (1831 : adult); *Nutt. Man.* ii. p. 301 (1834).

Larus brachyrhynchus, *Rich. in Sw. & Rich. F. Bor.-Amer., Birds*, p. 422 (1831 : juv., Bear Lake); *Nutt. Man. Orn.* ii. p. 301 (1834); *Coues, Pr. Philad. Acad.* 1862, p. 302; *Elliot, New & Unfig. B. N. Amer.* ii. pl. 53 (1869); *Dall & Bann. Tr. Chic. Acad.* i. p. 305 (1869); *Saunders, P. Z. S.* 1878, p. 178 (revision Larinæ); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 52 (1881); *Coues, Check-l. N. Amer. B.* p. 121 (1882); *id. Key N. Amer. B.* 2nd ed. p. 746 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 247 (1884); *Turner, Contrib. N. H. Alaska*, p. 126 (1886); *A. O. U. Check-l. B. N. Amer.* p. 90 (1886); *Ridgw. Man. N. Amer. B.* p. 34 (1887); *Nelson, Rep. N. H. Alaska*, p. 54 (1887).

Larus suckleyi, *Lawr. Ann. Lyc. N. Y.* 1854, p. 264; *Baird, Cass., & Lawr. B. N. Amer.* p. 847 (1858); *Schleg. Mus. P.-Bas*, Lari, p. 27 (1863); ? *Blasius, J. f. O.* 1865, p. 381.

Rissa septentrionalis, *Lawr. Ann. Lyc. N. Y.* 1854, p. 266 (adult); *Baird, Cassin, & Lawr. B. N. Amer.* p. 854 (1858); *Baird, Cat. N. Amer. B.* no. 673 (1859).

Larus canus, var. brachyrhynchus, *Coues, Key N. Amer. B.* p. 313 (1872); *id. Check-l. N. Amer. B.* no. 549 (1873); *id. B. N.-West*, p. 638 (1874).

Adult male in breeding-plumage. Similar to *L. canus*, but smaller, with the mantle of a darker and bluer grey than in Western examples of that species, and with more white in the primaries. All these are tipped with white, but the outermost least; the 1st quill blackish on the greater part of the outer web, with a long grey wedge on the inner web and more or less of a blackish band from the shaft to the inner margin, below which is a long white mirror on both webs, followed by a subterminal bar of black; 2nd quill chiefly grey basally on both webs, with little of the black band—and sometimes none at all—above the white mirror, which is followed by the usual bar; 3rd, 4th, and 5th similar, the grey from the base joining the white above the bar; 6th with only a half bar on the inner web; succeeding quills grey tipped with white. In less mature birds there is a larger proportion of dark colour and the 6th

quill bears a narrow, but complete, subterminal bar. Bill olive-green basally, yellow at the tip; orbital ring vermilion; tarsi and toes olive-colour, the webs yellowish. Total length about 17 inches, culmen 1·75, wing 13·5 to 14, tail 6, tarsus 1·95, middle toe with claw 1·75.

The *female* is probably somewhat smaller, but the Museum series is not sufficient for a positive statement.

Young. As in the last species, except that the brown has a greyer tint and the spangled markings are less defined.

Immature. Allowing for a larger proportion of grey colour in the primaries, this phase is similar to that in *L. canus*.

Nestling in half-down. Greyish brown, the new feathers on the mantle tipped with buff; the black spot at the base of the bill very strongly marked.

Hab. Western portion of Arctic and sub-Arctic America; in winter down the Pacific coast to California. Kuril Islands (once).

a, b. Juv. sk.	Buckland River, N.W. America.	Capt. Kellett & Lt. Wood, R.N. [P.].
c. Juv. ptil.; *d–k.* ♂ juv., ♀ imm., et ♂ ♀ ad. sk.	St. Michael's, Alaska, June–Aug. (*E. W. Nelson*).	Salvin-Godman Coll.
l. Juv. sk.	St. Michael's, Alaska, Aug. *E. W. N.*).	H. Saunders Coll.
m. ♂ ad. sk.	Lake Nushagak, Alaska (*L. C. McKay*).	H. Saunders Coll.
n. Ad. sk.	Kadiak, Alaska (*W. J. Fisher*).	H. Saunders Coll.
o. Juv. sk.	Esquimalt, Vancouver I., Dec. (*Hepburn*).	H. Saunders Coll.
p. Vix ad. sk.	Californian coast.	H. Saunders Coll.
q. ♂ juv. sk.	California (*H. W. Henshaw*).	Salvin-Godman Coll.
r. ♂ juv. sk.	Humboldt Bay, Cal., Dec. (*C. H. Townsend*).	Salvin-Godman Coll.
s. ♀ ad. sk.	San Mateo, Cal., Jan. (*Hepburn*).	H. Saunders Coll.
t. ♂ ad. sk.	Ventura, Cal., Nov. (*H. W. Henshaw*).	Salvin-Godman Coll.
u, v. ♂ ♀ juv. sk.	San Diego, Cal., Dec. (*H. W. H.*).	Salvin-Godman Coll.
w. Ad. sk.	Kuril Islands?, Feb. (*H. J. Snow*).	Seebohm Coll.

40. Larus glaucescens.

[?] Larus glaucopterus, *Kittlitz in Lutke's Voy.* '*Sóniarine*,' French transl. iii. p. 272 & p. 280 (1836: Ounalachka)*; *id. Denkw.* i. p. 259 & p. 335 (1858).

Larus glaucescens, *Naum. Vög. Deutschl.* x. p. 351 (1840: type in Berlin Mus.); *Baird, Cass., & Lawr. B. N. Amer.* p. 842 (1858); *Kittl. Denkw.* i. p. 259, p. 285, p. 335 (1858); *Coues, Pr. Philad. Acad.* 1862, p. 295; *Elliot, New & Unfig. B. N. Amer.* i. Introd.

* The brief description (p. 280) would equally apply to *L. nelsoni*.

[wing figured and name transposed] (1869); *Dall & Bann. Tr. Chic. Acad.* i. p. 304 (1869: Alaska); *Swinhoe, Ibis*, 1874, p. 165 (Hakodadi); *Baird, t. c.* p. 842; *Coues, Key N. Amer. B.* p. 312 (1872); *Gray, Hand-l. B.* iii. p. 113, no. 10965 (1871: part.); *Dall, Avif. Aleut. Is. Unal. eastw.* p. 8 (1873); *id. Avif. Aleut. Is. West. Unal.* p. 9 (1874); *Coues, B. N.-West*, p. 622 (1874); *Swinh. Ibis*, 1874, p. 163 (N. Japan); *Blakist. & Pryer, Ibis*, 1878, p. 217 (Japan); *Saunders, P. Z. S.* 1878, p. 167 (revision Larinæ); *id. Journ. Linn. Soc.* xiv. p. 395 (1878: distribution); *Seebohm, Ibis*, 1879, p. 23 (Japan); *Blakist. & Pryer, Tr. As. Soc. Jap.* viii. p. 189 (1880); *iid. op. cit.* x. p. 103 (1882); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 51 (1881); *Bean, Pr. U.S. Nat. Mus.* 1882, p. 168 (Alaska); *Coues, Check-l. N. Amer. B.* p. 120 (1882); *Stejn. Pr. U.S. Nat. Mus.* 1883, p. 70; *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 223 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 741 (1884); *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 62 (1885: Commander Is.); *A. O. U. Check-l. N. Amer. B.* p. 87 (1886); *Turner, Contr. N. H. Alaska*, p. 125 (1886); *Ridgw. Man. N. Amer. B.* p. 27 (1887); *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 119 (Commander Is.); *Nelson, Rep. N. H. Alaska*, p. 53 (1887); *Palmén, Vega-Exped. Vetensk.* Bd. v. p. 369 (1887: Pitekai); *Seebohm, B. Japan. Emp.* p. 290 (1890); *Allen, Auk*, 1893, p. 123 (distribution); *A. K. Fisher, Rep. U.S. Dep. Agric.* no. 7, p. 13 (1893: San Simeon, Cuba, 35° 30′ N.).

Glaucus glaucopterus (?), *Bruch, J. f. O.* 1853, p. 101 (Kamtschatka, ? *Kittlitz*).

Glaucus glaucescens, *Bruch, J. f. O.* 1853, p. 101 (*ex Licht.**).

Larus glaucopterus, *Licht.* (? *Kittlitz*) *Nomencl. Av.* p. 99, sine descr. (1854: Bering Straits, *Chamisso*†).

[?] Laroïdes glaucopterus, *Bp. Naum.* 1854, p. 211 (Kamtschatka).

Laroïdes glaucescens, *Bp. Naum.* 1854, p. 212; *Bruch, J. f. O.* 1855, p. 281.

Leucus glaucescens, *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 216 (1857).

Larus chalcopterus, *Baird, Cassin, & Lawr.* (*nec Licht.*) *B. N. Am.* p. 843 (1860); *Coues, Proc. Philad. Acad.* 1862, p. 295; *Gray, Hand-l. B.* iii. p. 113, no. 10964 (1871).

Adult male in breeding-plumage. Head, neck, tail, and underparts white; mantle bluish grey (much as in *L. argentatus*); scapulars, secondaries, and primaries broadly tipped with white; the foundation-pattern of the quills two shades of ashy grey; the 1st quill either white for fully 2 inches terminally, or with a dark subterminal bar, which is often confined to the inner web, but sometimes divides the white into a "mirror" and "tip," according to age; 2nd with a white subterminal spot on each side of the shaft, which remains grey, while the inner web at its junction with the spot inclines to white; 3rd quill without a distinct spot, but whitish at the apex of the 'wedge' of the grey inner web (*see cut*, p. 286); 4th pale grey on the greater part of both webs, so that the darker grey shows as a distinct bar; 5th with smaller dark bar surmounted by white, which blends with the grey of the basal portion; 6th similar, but

* Example in Mainz Museum examined.
† Example in Berlin Museum examined.

bar very narrow or reduced to a spot on the outer web; the rest grey basally, tipped with white: bill yellow, red at the angle of

Larus glaucescens.

the lower mandible; culmen rather abruptly decurved at the tip; tarsi and toes "light flesh colour" (*Coues*). Total length 25 to 26 inches, culmen 2·75, wing 17 to 17·5, tail 8, tarsus 2·7, middle toe with claw 2·7.

The *female* has a less robust bill and is somewhat smaller.

Adult in winter. Like the above, but the head and neck streaked with brownish grey.

Young (*two months old*). General colour dark greyish brown; the forehead and lores almost lead-colour; the feathers of the mantle and tail-coverts edged with dull buff; primaries ash-brown exteriorly, much paler on the inner webs; rectrices ash-brown, the outer pairs slightly mottled: bill dark brown; tarsi and toes paler brown. Both upper and under surfaces rapidly become paler, and a greyer tint prevails the same year: this becomes more marked the second year, when the feathers of the mantle are chequered and the rectrices are distinctly mottled.

Immature. Head, neck, and underparts nearly white; mantle almost as in the adult, with a little brownish mottling on the secondaries; an indication of a mirror on the first primary; white tips, followed by distinct subterminal bars, on the 3rd, 4th, and 5th quills; tail white, with large irregular blotches of ash-grey: bill yellowish, darkly banded across the angle; tarsi and toes dull flesh-colour. At the next moult the secondaries are pure white

terminally, while the primaries are fairly ash-grey, with a distinct mirror on the outermost primary and a visible pattern on the rest; tail still mottled with grey, but paler.

Hab. Both sides of Bering Sea, but very little to the north of the Straits and not at Point Barrow; the Aleutian chain of islands, the Commander Is. and Kamtschatka, and the American coast to the Straits of San Juan de Fuca (breeding); in winter to Southern California, and to Northern Japan.

a. Juv. sk.	St. Michael's, Alaska, Oct. (*E. W. Nelson*).	Salvin-Godman Coll.
b. ♀ imm. sk.	Ounalaska Island, Alaska, May (*E. W. N.*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Kadiak Island, Alaska (*W. J. Fisher*).	Salvin-Godman Coll.
d. Ad. st.	Vancouver Island.	Dr. Lyall, R.N. [P.].
e. Juv. sk.	Vancouver Island [about August].	J. K. Lord, Esq. [P.].
f. ♂ ad. sk.	Vancouver Island, March (*J. Hepburn*).	H. Saunders Coll.
g, h. ♂ ♀ vix ad. sk.	Vancouver Island, Feb.–March (*A. Forrer*).	H. Saunders Coll.
i. ♂ juv. sk.	Vancouver Island, April (*A.F.*).	H. Saunders Coll.
k. ♀ imm. sk.	Whidby Island, W. Terr., Jan. (*F. Stephens*).	Salvin-Godman Coll.
l. Imm. sk.	Olympia, W. Terr., Dec. (*Henshaw Coll.*).	Salvin-Godman Coll.
m. ♀ juv. sk.	Farallones, San Francisco Bay, Cala., April (*Hepburn*).	H. Saunders Coll.
n, o. ♂ juv.; *p, q.* ♀ juv. sk.	Ventura, Cala., Nov. (*Henshaw*).	Salvin-Godman Coll.
r. ♂ ad.; *s.* Imm. sk.	Hakodadi, Japan (*Capt. Blakiston*).	Seebohm Coll.

41. Larus nelsoni.

[?] Laroides chalcopterus, *Bruch* (? *Licht.*), *J. f. O.* 1855, p. 282 ("Bering Str. and Greenland").

Leucus chalcopterus, *Bp.* (? *Licht.*) *C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 216 (1857: "Bering Str. and Greenland") *.

Larus glaucescens, *Gray, Hand-l. B.* iii. p. 113 (1871: as regards Kellett and Wood's bird).

Larus nelsoni, *Henshaw, Auk*, 1884, p. 250 (St. Michael's, Alaska); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 222 (1884); *A. O. U. Check-l. N. Amer. B.* p. 88 (1886); *Ridgw. Man. N. Amer. B.* p. 27 (1887); *Henshaw, in Nelson's Rep. N. H. Alaska, Birds*, p. 53 (1887: Pt. Barrow, juv. ?).

? Larus kumlieni, *Murdoch, Exped. Pt. Barrow*, p. 123 (1885: juv.).

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* Bonaparte's description (*Consp. Av.*) seems to suit *L. nelsoni*, but the second locality must refer to *L. kumlieni* (*infra*, p. 288). When I examined the supposed type of Lichtenstein's *L. chalcopterus* in the Berlin Museum, in 1877, I took it to be *L. leucopterus*, but it is possible that the faint grey markings on the primaries may have escaped my notice in a bad light, especially if the quills were worn and abraded.

Adult. Head, neck, tail, and entire underparts white; mantle pearl-grey (decidedly lighter than in ordinary *L. argentatus* and less blue than in *L. glaucescens*); scapulars and secondaries broadly tipped with white; outermost primary ash-grey on the outer web, with a paler stripe 0·3 inch wide next the shaft on the inner web, to within about 3 inches from the tip, the said 3 inches on both webs and the rest of the inner web being white; 2nd quill similar, but with the grey on the inner web paler and less defined; 3rd very pale grey basally, a stripe of pale ash for about 3·5 on the outer web, and about 2·5 of the terminal portion of the inner web white. In the specimen in the British Museum these three quills are much worn and abraded, while the 4th is missing. On the 5th, which is new, there is a slight pattern of ash-grey on the outer web; the terminal portion of this and the succeeding quills being white, which passes into palest grey basally. In the type specimen, in the Smithsonian Museum, there appears to be more definition in the pattern, owing partly to the better condition of the specimen. Bill yellow, with a red spot at the angle: not very stout; tarsi and toes ochraceous yellow (in the dried specimen). Total length about 23 inches, culmen 2·4, wing about 16·5 (allowing for abrasion), tail 7·75, tarsus 2·6, middle toe with claw 2·6. Our bird is probably a female, judging from the measurements of the type, which is a male.

? *Young* (Vancouver I., 20th Dec.). This specimen is very similar to young *L. glaucescens*, but the rectrices are of a deeper brown and unmottled on the exterior webs of the outermost pair. In this respect the bird resembles young *L. occidentalis*, but some new grey feathers appearing on the mantle are far too pale for that species. The measurements suit *L. nelsoni* better than *L. glaucescens*.

Hab. Alaska and North-west America. Only two adults are known up to the present time.

a. Ad. sk.	Alaskan Coast.	Capt. Kellett & Lieut. Wood, R.N. [P.].
? *b*. ♀ juv. sk.	Vancouver I., Dec. 20th (*A. Forrer*).	H. Saunders Coll.

42. Larus kumlieni.

Larus glaucescens (*nec Naum.*), *Kumlien, Bull. U.S. Nat. Mus.* no. 15, p. 98 (1879: Cumberland Sd., Baffin Ld.); *Brewst. Bull. Nutt. Orn. Club*, 1883, p. 125 (Bay of Fundy); *Merrill, t. c.* p. 125 (Grand Menan).

Larus kumlieni, *Brewster, Bull. Nutt. Orn. Club*, 1883, p. 216 (Cumberland Sd. and Bay of Fundy); *Park, Auk*, 1884, p. 196 (N. York State); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 219 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 742 (1884); *A. O. U. Check-l. N. Amer. B.* p. 88 (1886); *Ridgw. Man. N. Amer. B.* p. 27 (1887).

Adult in breeding-plumage. Smaller than the preceding species,

but extremely similar, the difference being (in our specimen) that the grey pattern is darker, while on the 3rd (*see cut*) and 4th quills there is a fairly defined subterminal bar across both webs: bill

Larus kumlieni.

yellow, the angle red; tarsi and toes dull yellow (dried). Total length 19·5 inches, culmen 2·1, wing 15·5, tail 6·5, tarsus 2, middle toe with claw 2·1.

Young. Unknown to me. Mr. Kumlien states that the birds shot in Cumberland Sound in September were "even darker than the young of *L. argentatus*, the primaries and tail being very nearly black." Two young birds sent by Mr. W. Brewster and ascribed to this species are, in my opinion, young *L. leucopterus*.

Hab. Cumberland Sound, Baffin Land. In winter to Bay of Fundy and New York.

a. ♂ ad. sk.	Cumberland Sound, west side of Davis Straits, June 10, 1884 (*Henderson*).	H. Saunders Coll.

43. Larus glaucus.

Larus glaucus, *Brünn. Orn. Bor.* p. 44 (1764: Iceland); *Fabr. Faun. Grœnl.* p. 100 (1780, *ex Brünn.*); *Mohr, Island. Naturh.* p. 42 (1786); *Gm. S. N.* i. p. 600 (1788); *Lath. Ind. Orn.* ii. p. 814 (1790); *Bonn. Enc. Méth.* i. p. 841 (1790); *Retzius, Faun. Suec.* p. 156 (1800);

Pallas, Zoogr. Rosso-Asiat. ii. p. 320 (1811: Sea of Okhotsk); *Meyer, Ann. Wetterau Ges.* iii. pp. 162–168 (1812); *E. Sabine, Tr. Linn. Soc.* xii. p. 543 (1819: Greenland); *Leach, in Ross's Voy. Baffin B.* 4to ed. p. liv (1819); *id. op. cit.* 8vo ed. ii. p. 161 (1819); *Scoresby, Arct. Voy.* i. p. 535 (1820); *Temm. Man. d'Orn.* 2me éd. p. 757 (1820); *E. Sabine, Supp. Parry's 1st Voy.* p. cciii (1821: Barrow Str. and Polar Sea generally); *Meyer, Zusätze Taschenb.* iii. p. 191 (1822); *Boie, Isis*, 1822, p. 562; *Brehm, Beitr. Vogelk.* iii. p. 800 (1822); *Manby, Voy. Greenl.* p. 48 (1822); *Licht. Verz. Doubl.* p. 82 (1823); *Brehm, Lehrb.* p. 729 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 189 (1826); *J. Richardson, App. Parry's 2nd Voy.* p. 358 (1825: Lyon Inlet, S. of Melville Peninsula); *J. C. Ross, App. Parry's 3rd Voy.* p. 103 (1826: Pt. Bowen and N. Somerset Ld. on opp. side of Pr. Regent's Inlet); *id. App. Parry's 4th Voy.* p. 194 (1828: Low I., Spitsbergen, but not N. of 81°); *Brehm, Ornis*, Heft ii. p. 136 (1826); *Bp. Ann. Lyc. N. Y.* ii. p. 361 (1828); *Werner, Atlas, Palmipèdes*, p. 15 (1828); *Vieill. Faun. Franç., Ois.* p. 395 (1828); *Fleming, Brit. Anim.* p. 139 (1828); *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 733 (1831); *Sw. & Rich. Faun. Bor.-Amer., Birds*, p. 416 (1831); *Selby, Brit. B.* ii. p. 498, pl. xcix. (1838); *Nuttall, Man. Orn.* ii. p. 306 (1834); *Jenyns, Man. Brit. Vertebr.* p. 279 (1835); *Eyton, Cat. Brit. B.* p. 53 (1836); *Gould, B. Eur.* v. pl. 432 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Audub. Orn. Biogr.* v. p. 59, pl. 396 (1839); *id. Synop.* p. 329 (1839); *Naum. Vög. Deutschl.* x. p. 350, pl. 264 (1840); *Schinz, Europ. Faun.* p. 378 (1840); *Temm. Man. d'Orn.* 2me éd. 4me pte. p. 467 (1840); *Keys. & Blas. Wirb. Eur.* p. xcvi & p. 243 (1840); *Gray, List Gen. B.* p. 78 (1840); *id. op. cit.* ed. 1841, p. 99; *Selys-Longch. Faun. Belg.* p. 153 (1842); *Macgill. Man. Brit. Orn.* ii. p. 247 (1842); *Giraud, B. Long Isl.* p. 363 (1844); *Schl. Rev. Crit.* p. cxxv (1844); *Audub. B. N. Amer.* 8vo ed. vii. p. 170, pl. 449 (1844); *Gray, List B. Brit. Mus.*, Anseres, p. 168 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 595 (1845); *Hewitson, Eggs Brit. B.* ii. p. 450, pl. cxxviii. fig. 2 (1846); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 309 (1849); *Thomps. B. Irel.* iii. p. 388 (1851); *Brandt, Lehmann's R. n. Buchara*, p. 331 (1852: mouth of Ural river); *Macgill. Br. B.* v. p. 557 (1852); *Kjærb. Danm. Fugle*, p. 341, tab. xlii. (1852); *Middend. Reis. Sibir., Zool.* p. 241 (1853); *Schl. Vog. Nederl.* p. 594, pls. 340 & 341 (1854); *Licht. Nomencl. Av.* p. 99 (1854); *Carte, Journ. R. Dublin Soc.* i. p. 57 (Prince Patrick Isl., *M'Clintock*); *Meyer, Brit. B.* vii. p. 147, pl. 307 (1857); *A. Armstrong, N.W. Pass.* 'Investig.' p. 347 (1857: Pr. Albert Land); *Baird, Cass., & Lawr. B. N. Amer.* p. 842 (1858); *Evans & Sturge, Ibis*, 1859, p. 167 (W. Spitsbergen): *Schl. Dier. Nederl. Vogels*, p. 234 (1861); *Reinhardt, Ibis*, 1861, p. 16 (Greenland); *A. Newton, in Baring Gould's Iceland*, p. 418 (1863); *Gray, Cat. Brit. B.* p. 230 (1863); *Radde, Reise Sibir., Vög.* ii. p. 382 (1863); *Schl. Mus. P.-B.*, Lari, p. 4 (1863); *Malmgr. Œfv. Ak. Förh.* 1863, p. 105; *id. op. cit.* 1864, p. 389 (Spitsbergen); *A. Newt. Ibis*, 1865, p. 509 (Spitsbergen); *Degl. & Gerbe, Orn. Eur.* ii. p. 409 (1867); *Borggr. Vogelf. Norddeutschl.* p. 142 (1869); *Dall & Bann. Tr. Chic. Acad.* i. p. 304, no. 177 (1869: St. Michael's, Alaska); *Fritsch, Vög. Eur.* p. 473, tab. 56. fig. 8 (1870); *Gillett, Ibis*, 1870, p. 306 (Novaya Zemlya); *R. Gray, B. West Scotl.* p. 490 (1871); *G. R. Gray, Hand-l. B.* iii. p. 112, no. 10960 (1871); *Harting, P. Z. S.*

1871, p. 122 (Melville I., *M'Clintock*); *id. Handb. Brit. B.* p. 77 (1872); *Heugl. Ibis*, 1872, p. 65 (Novaya Zemlya); *Feilden, Zool.* s.s. p. 3289 (1872: Færoes); *Salvad. Faun. Ital., Uec.* p. 295 (1872); *Coues, Key N. Amer. B.* p. 311 (1872); *id. in Elliott's Rep. Pribiloff Group*, no. 543 (1873); *Collett, Forh. Selsk. Christ.* 1873, p. 294 (N. Norway); *Palmén, Finlands Fogl.* p. 585 (1873); *Gould, B. Gt. Brit.* v. pl. 57 (1873); *R. Gray, Pr. Nat. Hist. Soc. Glasg.* 1873, p. 199; *H-Brown, t. c.* p. 210 (Forth); *Coues, B. N.-West*, p. 620 (1874); *Sundev. Öfv. Ak. Förh.* 1874, p. 21 (Mossel Bay); *Swinh. Ibis*, 1874, p. 165 (N. Japan); *Bessels, Bull. Soc. Geogr. Paris*, 1875, p. 296 (Polaris Bay); *Irby, Orn. Strs. Gibr.* p. 215 (1875: Tangier); *A. Newton, Arctic Man.* p. 106 (1875); *Seebohm & H-Brown, Ibis*, 1876, p. 453 (Lower Petchora); *Taczan. Bull. Soc. Zool. Fr.* 1876, p. 263 (E. Siberia); *Dresser, B. Eur.* viii. p. 433, pl. 605 (1877); *Feilden, Ibis*, 1877, p. 409 (up to 82° N.); *Collett, Nyt Mag. Naturv.* 1877, p. 210 (N. Norway); *E. Adams, Ibis*, 1878, p. 440 (Norton Sd.); *Saunders, P. Z. S.* 1878, p. 165; *Marmott. & Vian, Bull. Soc. Zool. Fr.* 1879, p. 249 (Crotoy); *Seebohm, Ibis*, 1879, p. 161 (Yenesei); *Bessels, Amerik. Nordpol-Exped.* p. 312 (1879: Polaris Bay); *Kumlien, Bull. U.S. Nat. Mus.* no. 15, p. 95 (1879: Cumberland Sd.); *Feilden, Zool.* 1879, p. 7 (Pr. Albert Ld.); *Ragsdale, Bull. Nutt. Orn. Cl.* 1881, p. 187 (Red River, Texas: imm.); *Maynard, B. East. N. Amer.* p. 482 (1881: Mass., rare); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 51 (1881); *Feilden, in Markham's Polar Reconn.* p. 334 (1881: Novaya Zemlya); *Coues, Check-list N. Amer. B.* p. 120 (1882); *W. H. Neale, P. Z. S.* 1882, p. 653 (Franz-Josef Ld.); *Elliott, Seal Is. Alaska*, p. 132 (1882); *Seebohm (Henke), Ibis*, 1882, p. 230 (N. Caspian, imm.); *id. (id.) t. c.* p. 385 (Kanin Peninsula, breeding); *Bean, Pr. U.S. Nat. Mus.* 1882, p. 168 (Cape Lisburn); *Nelson, Cruise 'Corwin,'* p. 106 (1883); *Tacz. Bull. Soc. Zool. Fr.* 1883, p. 341 (Kamtschatka); *B. O. U. List Brit. B.* p. 187 (1883); *Saunders, Ibis*, 1884, p. 391 (S.W. France); *id. 4th ed. Yarr. Brit. B.* iii. p. 636 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 741 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 211 (1884); *Stearns, Pr. U. S. Nat. Mus.* vi. p. 122 (1884: Labrador); *Bunge, Mél. Biol.* xii. livr. 1, p. 48 & p. 53 (1884: Lena delta); *Seebohm, Brit. B.* iii. p. 330 (1885); *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 132 (1885: St. Petersburg); *Murdoch, Exped. Pt. Barrow*, p. 122 (1885); *Fischer & Pelz. MT. orn. Ver. Wien*, 1886, p. 210 (Jan Mayen I.); *Homeyer, Ornis*, 1885, p. 80 (Germany); *A. O. U. Check-l. N. Amer. B.* p. 87 (1886); *Gröndal, Ornis*, 1886, p. 370 (Iceland); *Giglioli, Arif. Ital.* p. 433 (1886); *Salvad. Uec. Ital.* p. 287 (1887); *Booth, Rough Notes*, iii. (1887); *Schneider, Ornis*, 1887, p. 551 (Upp. Alsace: juv., winter); *Ridgw. Man. N. Amer. B.* p. 26 (1887); *Townsend, Auk*, 1887, p. 12 (N. Alaska); *Feilden, Tr. Norw. Soc.* iv. p. 351 (1887: Hudson Str.); *Palmén, Vega-Exped. Vetensk.* p. 365 (1887); *H-Brown & Buckl. Faun. Sutherl.* p. 234 (1887); *iid. Outer Hebr.* p. 149 (1888); *Taczan. Ornis*, 1888, p. 507 (Poland); *Seebohm (Bunge), Ibis*, 1888, p. 350 (Gt. Liakoff I.); *Cooke, Bird Migr. Mississippi Vall.* p. 55 (1888: Kansas); *Greely, Rep. Exped. Lady Franklin Bay*, ii. p. 22 (1888); *Saunders, Man. Brit. B.* p. 663 (1889); *Giglioli, Avif. Ital.* i. *Resoc.* p. 647 (1889); *M. Chamberlain, Auk*, 1889, p. 214 (S. Greenland); *Seeb. B. Japan. Emp.* p. 290 (1890); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 417 (1891: Arctic Amer.); *Gätke, Vogelw.*

Helgol. p. 566 (1891); *Hagerup, B. Greenl.* p. 46 (1891); *W. E. Clarke, Zool.* 1890, p. 49 (Jan Mayen I.); *Hartert, Ibis*, 1892, p. 521 (E. Prussia, juv.); *Lilford, Col. Figs. Brit. B.* pt. xxiii. & pt. xxvii. (1893); *Collett, Nyt Mag. Naturv.* Bd. xxxv. p. 309 (1894: Norway); *Dubois, Vertebr. Belg., Ois.* ii. p. 577, pl. 289 (1894); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 301 (1895).

Larus hyperboreus, *Gunnerus, in Leem's Beskr. Finm. Lapp.* p. 283 (1767).

Le Goéland à Manteau gris brun ou le Bourgmestre, *Buffon, Hist. Nat. Ois.* viii. p. 418 (1783).

Le Goéland à Manteau gris et blanc, *Buff. Hist. Nat. Ois.* viii. p. 421 (1783).

Glaucous Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 374 (1785); *Yarr. Brit. B.* iii. p. 475 (1843).

Larus maximus, *O'Reilly* (*nec Leach*, 1816), *Greenland*, p. 141, pl. xiii. (1818).

? Larus leuceretes, *Schleep, N. Ann. Wetterau Gesel.* iv. p. 314 (1819).

Larus consul, *Boie, Wiedemann's Zool. Mag.* 1819, p. 126 (Spitsbergen); *Brehm, Isis*, 1830, p. 994; *id. Vög. Deutschl.* p. 735 (1831).

? Larus medius, *Brehm, Beitr. Vogelk.* iii. p. 810 (1822); *id. Lehrb. Eur. Vög.* p. 731 (1824); *id. Vög. Deutschl.* p. 736 (1831).

Larus islandicus, *Edmonst. Mem. Wern. Soc.* iv. p. 185 (1822: not of *Edmonst. op. cit.* p. 506, which is *L. leucopterus*).

Larus leucopterus (*nec Faber*), *Vieill. Enc. Méth.* i. p. 346 (1823); *Dall & Bann. Tr. Chic. Acad.* 1869, p. 304 (St. Michael's, Alaska); *Saunders, P. Z. S.* 1878, p. 166 (as regards Japan); *id. 4th ed. Yarr. Brit. B.* iii. p. 648 (as regards N. Pacific & Bering Sea); *Nelson, Rep. B. Alaska*, p. 52 (1887); ? *Townsend, Auk*, 1887, p. 12 (N. Alaska); *Cooke, Bird Migr. Mississippi Vall.* p. 55 (1888); *Saunders, Man. Brit. B.* p. 664 (1889: as regards N. Pacific & Bering Sea); *Seeb. B. Japan. Emp.* p. 292 (1890); ? *Fatio & Studer, Cat. Ois. Suisse*, p. 62 (1892: Lake of Neuchâtel).

Larus glacialis, *Brehm, Lehrb. Eur. Vög.* p. 705 (1824); *Macgill. Mem. Wern. Soc.* v. pt. i. p. 270 (1824: Shetland); *Brehm, Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 732 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 338 (1855).

Leucus glaucus, *Kaup, Natürl. Syst.* p. 86 (1829); *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 215 (1857); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 41 (1886); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890).

The Iceland Gull, *Bewick, Brit. B.* ii. *Suppl.* p. 28 (1831: Edmonston's *first* Shetland bird).

Larus hutchinsii, *Richards. F. Bor.-Am.* ii. p. 419, note (1831); *Cassin, Proc. Philad. Acad.* 1862, p. 290; *Coues, t. c.* p. 294; *Lawr. Ann. Lyc. N. Y.* viii. p. 299 (1865: Long I.); *Elliot, New & Unfig. B. N. Amer.* i. *Introd.* (wing figured and erroneously ascribed to *L. glaucescens*), ii. pl. 53 (1869); *Dall & Bann. Tr. Chic. Acad.* 1869, p. 304, no. 178 (Fort Yukon).

Plautus glaucus, *Reichb. Av. Syst. Nat., Longip.* p. v (1852).

Glaucus consul, *Bruch, J. f. O.* 1853, p. 101.

Laroides glaucus, *Bp. Naum.* 1854, p. 211; *Bruch, J. f. O.* 1855, p. 281.

Laroides glacialis, *Bp. Naum.* 1854, p. 212; *Bruch, J. f. O.* 1855, p. 282.

Larus barrovianus, *Ridgw. Auk*, 1886, p. 330 (Bering Sea); *Turner*,

Contr. N. H. Alaska, p. 125 (1886); *Ridgw. Man. N. Amer. B.* p. 26 (1887); *Nelson, Rep. B. Alaska*, p. 51 (1887); *F. M. Chapman, Auk*, 1888, p. 393; *Taczan. Mém. Acad. St. Pétersb.* (7) xxxix. p. 1019 (1893: E. Siberia).

Larus glaucescens, *Taczan. Mém. Acad. St. Pétersb.* (7) xxxix. p. 1019 (1893: E. Siberia).

Adult male in breeding-plumage. Head, neck, tail, and underparts white; mantle pale pearl-grey, the scapulars and secondaries distinctly white at the tips; primaries pale pearl-grey basally and on the outermost webs, white terminally: bill yellow, orange-red at the angle; iris straw-yellow, orbital ring orange; tarsi and toes bright flesh-pink (in life). Total length about 29 inches, culmen 2·6, wing 18 to 18·5, tail 7·25 to 7·5, tarsus 2·7, middle toe with claw 2·7.

The *female* is smaller, often considerably so; but there is also much individual difference in size, irrespective of sex.

Adult in winter. Similar, but mottled and streaked with pale brown on the head and neck; while in birds which have bred for the first time in the previous summer there is often a considerable amount of pale brown mottling on the mantle also, until February or even March.

Young. Both upper and under surfaces streaked and mottled with ash-brown on a paler ground-colour; the feathers of the mantle margined with buffish white, which produces a creamy appearance; outer quills clay-brown on their outer webs and paler on the inner webs; upper and under tail-coverts rather boldly marked with brown; rectrices, on the contrary, rather finely mottled: bill ochre-yellow to the angle, thence blackish to the tip; tarsi and toes brownish.

After the moult of the next year, both upper and under surfaces are much lighter, and pale grey feathers begin to show on the mantle, the outer primaries being all but white.

Immature. The mottlings of the upper surface gradually disappear, and for a short time the bird appears to be creamy white (in which phase of plumage it has received the name of *L. hutchinsi*). At the subsequent moult the pearl-grey mantle is assumed, but the new tail-feathers show some faint brownish mottlings until the next year.

Nestling (16th July, 1875). Stone-grey, with a slight tinge of yellowish buff below; the head spotted with black, and the back mottled with ash-brown.

Hab. Entire Circumpolar regions in summer; southwards in winter to the basin of the Mediterranean, the Black Sea and the northern part of the Caspian, Japan and California in the Pacific, Bermuda, Florida, and Texas on the Atlantic side.

a. Juv. st.	Cornwall, winter (*Vingoe*).	Purchased.
b. Juv. st.	Torquay, winter.	C. Coningham, Esq. [P.].
c. ♀ ad. sk.	Spurn Head, Nov.	Dr. H. B. Hewetson [P.].
d. Juv. st.	Orkney (*Bullock*).	Purchased.

e. Juv. sk.	Orkney, Jan. (*J. W. Lloyd*).	Seebohm Coll.
f. ♂ ad. st.	Shetland.	Purchased.
g, *h*. ♀ juv. sk.	Færoe Islands, Dec. (*Müller*).	H. Saunders Coll.
i, *k*. Juv. et imm. sk.	Vadsö, Varanger Fiord, June–July.	Seebohm Coll.
l. ♂ ad. sk.	Golaievskai Is., Lower Petchora River, July 13.	Seebohm Coll.
m. Ad. sk.	Spitsbergen.	The Admiralty [P.].
n. Ad. st.; *o*. Ad. sk.	Northern Sea.	The Admiralty [P.].
p, *q*. Ad. et vix ad. sk.	Lat. 78° 40′ N., long. 0° 22′ E.	Capt. D. Gray [P.].
r. Ad. sk.	Iceland (*W. Procter*).	Salvin-Godman Coll.
s, *t*. Ad. sk.	Greenland.	Hume Coll.
u. Ad. sk.	Whalefish Is., Disco Bay (*Dr. Robertson*).	The Admiralty [P.].
v. Ad. sk.	Upernavik (*Dr. Robertson*).	The Admiralty [P.].
w. Pull. sk.	Svarte-vogel Bay, N. Greenland, July 1875 (*H. C. Hart*).	H.M.S. 'Discovery' Exped.
x. Pull. sk.	Cary Island, Baffin Bay, July 27, 1875 (*Col. H. W. Feilden*).	H.M.S. 'Alert' Exped.
y. ♂ imm.; *z*. ♀ ad. sk.	Labrador (*Moeschler*).	H. Saunders Coll.
a′. ♂ ad. sk.	Godbout, Canada, April (*N. A. Comeau*).	Salvin-Godman Coll.
b′. Ad. st.	North-west America (*Capt. Collinson, R.N.*).	Voy. H.M.S. 'Enterprise.'
c′. Juv. st.	Kotzebue Sound, N.W. America.	Capt. Kellett & Lt. Wood, R.N. [P.].
d′. Juv. sk.	Stewart Isl., Alaska, Sept. (*E. W. Nelson*).	Salvin-Godman Coll.
e′–g′. Imm. et juv. sk.	St. Michael's, Alaska, Aug. (*E. W. N.*).	Salvin-Godman Coll.
h′. ♀ ad. sk.	Picnuktalik River, Alaska, July (*E. W. N.*).	Salvin-Godman Coll.
i′. ♂ ad. sk.	North mouth of Yukon, Alaska, May (*E. W. N.*).	Salvin-Godman Coll.
k′–q′. ♂ ♀ ad., imm., et juv. sk.	Amur Bay, Nov.–Mar. (*G. Dörries*).	H. Seebohm Coll.
r′, *s′*. ♂ imm. et ad. sk.	Hakodadi, Yezo, Japan.	Capt. Blakiston [P.].
t′, *u′*. ♀ ad. et ♂ juv. sk.	Hakodadi, Yezo, Japan, Feb.–Mar. (*Capt. Blakiston*).	Seebohm Coll.
v′. ♀ vix ad. sk.	Nambu Harbour, Japan (*H.M.S. 'Sylvia'*).	Tweeddale Coll.
w′. ♂ imm. sk.	Yedo Bay, S. Japan, March (*G. Stephen*).	H. Saunders Coll.
x′. ♂ imm. sk.	Port Hamilton, Corea Channel, Dec. (*G. Stephen*).	H. Saunders Coll.
y′. Skeleton.	Europe.	Purchased.
z′. Skeleton.	Spitsbergen, Aug. 1, 1894.	Col. H. W. Feilden [P.].

44. Larus leucopterus.

Larus argentatus, *E. Sabine* (*nec Gm.*), *Tr. Linn. Soc.* xii. p. 546 (1819).

Larus leucopterus, *Faber, Prodr. Isl. Orn.* p. 91 (1822); *Brehm, Beitr. Vogelk.* iii. p. 817 (1822); *id. Lehrb.* p. 715 (1824); *id. Ornis*, Heft ii. p. 137 (1826: Elbe); *Bp. Ann. Lyc. N. Y.* ii. p. 361 (1828); *Kaup, Natürl. Syst.* p. 28 (1829); *Sw. & Richards. Faun. Bor.-Amer.* ii. p. 418 (1831); *Lesson, Traité*, p. 617 (1831); *Nutt. Man. Orn.* ii. p. 305 (1834); *Audub. Orn. Biogr.* iii. p. 553, pl. 282 (1835); *Eyton, Cat. Brit. B.* p. 53 (1836); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Audub. Synop.* p. 327 (1839); *Schniz, Europ. Faun.* p. 378 (1840); *Temm. Man. d'Orn.* 4me pte. p. 467 (1840); *Werner, Atlas, Palmipèdes*, pl. 19 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcvi & p. 243 (1840); *Naum. Vög. Deutschl.* x. p. 367, tab. 265 (1840); *Macgill. Man. Brit. Orn.* pt. ii. p. 247 (1842); *Selys-Longch. Faun. Belg.* p. 154 (1842); *Schl. Rev. Crit.* p. cxxv (1844); *Audub. B. N. Amer.* 8vo ed. vii. p. 159, pl. 447 (1844); *Gray, Gen. B.* iii. p. 654 (1846); *Degl. Orn. Eur.* ii. p. 310 (1849); *Macgill. Brit. B.* v. p. 566 (1852); *Kjærb. Danm. Fugle*, p. 340, tab. xli. (1852); *id. op. cit. Suppl.* tab. xxii. figs. 1, 2 (1854); *Licht. Nomencl. Av.* p. 99 (1854); *Schl. Vog. Nederl.* p. 595, pl. 342 (1854); *Brehm, Naum.* 1855, p. 294; *Hewits. Eggs Brit. B.* ii. p. 498, pl. cxxxix. figs. 1–2 (1856); *Baird, Cass., & Lawr. B. N. Amer.* p. 843 (1858); *Schl. Dier. Nederl. Vogels*, p. 234 (1861); *Reinhardt, Ibis*, 1861, p. 17 (Greenland); *Gray, Cat. Brit. B.* p. 230 (1863); *A. Newton, in Baring-Gould's Iceland*, p. 418 (1863); *Degl. et Gerbe, Orn. Eur.* ii. p. 411 (1867); *Fritsch, Vög. Eur.* p. 473, tab. 56. fig. 6 (1870); *Gray, Hand-l. B.* iii. p. 112, no. 10962 (1871); *Harting, Handb. Brit. B.* p. 77 (1872); *Coues, Key N. Amer. B.* p. 311 (1872); *Palmén, Finlands Fogl.* p. 589 (1873: Finland?); *Finsch, Abh. Ver. Bremen*, v. p. 364 (1873: S. Greenland); *Collett, Forh. Selsk. Christ.* 1873, p. 293 (N. Norway); *H-Brown, Pr. N. H. Soc. Glasg.* 1873, p. 210 (Forth); *Coues, B. N.-West*, p. 622 (1874); *A. Newton, Arct. Man.* p. 106 (1875: Greenland); *Dresser, B. Eur.* viii. p. 439, pl. 606 (1876); *Kuml. Bull. U.S. Nat. Mus.* no. 15, p. 97 (1877: Cumberland Sd. & Greenland); *Saunders, P. Z. S.* 1878, p. 166 (revision Larinæ); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 51 (1881); *Maynard, B. East. N. Amer.* p. 483 (1881: Boston, very rare); *Coues, Check-list N. Amer. B.* p. 120 (1882); *Brewster, Bull. Nutt. Orn. Club*, viii. p. 125 (1883: Maine); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 642 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 741 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 216 (1884); *Fischer & Pelz. MT. orn. Ver. Wien*, 1886, p. 210 (Jan Mayen I., breeds); *Seebohm, Brit. B.* iii. p. 333 (1885); *Homeyer, Ornis*, p. 80 (1885); *Lütken, t. c.* p. 145 (Denmark); *Gröndal, op. cit.* 1886, p. 370 (Iceland); *A. O. U. Check-list N. Amer. B.* p. 87 (1886); *Ridgw. Man. N. Amer. B.* p. 26 (1887); *Palmén, Vega-Exped. Vetensk.* p. 369 note (1887: *not* in Siberia or Bering S.); *Feilden, Tr. Norw. Soc.* iv. p. 351 (1887: Digges I., breeding); *H-Brown & Buckl. Faun. Sutherl.* p. 234 (1887); *iid. F. Outer Hebrid.* p. 149 (1888); *Greely, Rep. Exped. Lady Franklin Bay*, ii. p. 22 (1888: Smith Sd.); *Saunders, Man. Brit. B.* p. 665 (1889); *Chamberl. Auk*, 1889, p. 215 (S. Greenland); *Stevenson & Southw. B. Norfolk*, iii. p. 336 (1890); *W. E. Clarke, Zool.* 1890, p. 50 (Jan Mayen I., breeds); *Buckl. & H-Brown, Faun. Orkney Is.* p. 234 (1891); *Gätke, Vogelw. Helgol.* p. 567

(1891); *Hagerup, B. Greenl.* p. 46 (1891); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 418 (1891: *not* in Arctic Amer.); *M. Ogilvie, Zool.* 1892, p. 114 (Aldeburgh); *Hartert, Ibis,* 1892, p. 521 (E. Prussia, one juv.); *Lilford, Col. Figs. Brit. B.* pt. xxvi. (1893); *Gurney, Zool.* 1894, p. 85 (Norfolk); *Collett, Nyt Mag. Naturv.* Bd. xxxv. p. 311 (1894); *Dubois, Verteb. Belg., Ois.* ii. p. 580, pl. 290 (1894).

Larus glaucoides, *Meyer, Zusätze Taschenb.* iii. p. 197 (1822); *Boie, Isis,* 1822, p. 562; *Temm. Pl. Col.* livr. 77, introd. *Larus* (1828).

Larus moltke, *Teilmann, Dan. og Isl. Fugl.* p. 159 (1823).

Larus arcticus, *Macgill. Mem. Wern. Soc.* v. pt. i. p. 268 (1824: Greenland; a large specimen).

Larus islandicus, *Edmonst. Mem. Wern. Soc.* iv. p. 506 (1823: *nec Edmonst. op. cit.* p. 185); *Fleming, Brit. An.* p. 139 (1828); *Selby, Brit. B.* ii. p. 501, pl. xcviii. (1833); *Jenyns, Man. Brit. Vertebr.* p. 279 (1835); *Gould, B. Eur.* v. pl. 433 (1837); *Meyer, Brit. B.* vii. p. 150, pl. 308 (1857); *Feilden, Zool.* s.s. p. 3289 (1872: Færoes); *Gould, B. Gt. Brit,* v. pl. 58 (1873).

Larus minor, *Brehm, Isis,* 1830, p. 993; *id. Vög. Deutschl.* p. 736 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 338 (1855).

Laroides glaucoides, *Brehm, Isis,* 1830, p. 993; *id. Vög. Deutschl.* p. 744 (1831); *id. Naum.* 1855, p. 294.

Laroides leucopterus, *Brehm, Isis,* 1830, p. 993; *id. Vög. Deutschl.* p. 745 (1831); *Bp. Naum.* 1854, p. 211; *Brehm, op. cit.* 1855, p. 294; *Bruch, J. f. O.* 1855, p. 281.

Laroides subleucopterus, *Brehm, Isis,* 1830, p. 993; *id. Vög. Deutschl.* p. 746 (1831); *id. Naum.* 1855, p. 294.

Iceland Gull, *Yarr. Brit. B.* iii. p. 456 (1843).

Larus icelandicus, *Yarr. Brit. B.* 2nd ed. iii. p. 575 (1845); *Thomps. B. Irel.* iii. p. 385 (1851); *R. Gray, B. West Scotl.* p. 484 (1871).

Glaucus leucopterus, *Bruch, J. f. O.* 1853, p. 101.

Glaucus glacialis, *Bruch, J. f. O.* 1853, p. 101.

Larus chalcopterus, *Licht. Nomencl. Av.* p. 99 (1854: descr. nulla *).

Laroides glacialis, *Bruch, J. f. O.* 1855, p. 282.

Leucus minor, *Bp. C. R.* xlii. p. 770 (1856).

Leucus leucopterus, *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 217 (1857); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 47 (1886); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 358 (1890).

Leucus leucopterus, *a.* minor, *Bp. Consp. Av.* ii. p. 217 (1857).

Leucus arcticus, *Bp. Consp. Av.* ii. p. 216 (1857).

Larus (Leucos) leucopterus, *Droste, Vogelw. Borkum,* p. 357 (1869).

Adult male in breeding-plumage. Like the preceding species, but smaller, with proportionately longer wings. Total length 22 inches, culmen 2·4, wing 16 to 16·5 (extreme), tail 7, tarsus 2·35, middle toe with the claw 2·3. The *female* is smaller.

Adult in winter, Immature, and *Young.* As in the preceding species, except as regards the white phase, of which I have no certain knowledge, though it probably exists. Mr. Kumlien says that the young are darker than those of *L. glaucus,* but, so far as our limited series goes, this does not seem to be the case, and I am inclined to suspect a confusion with the young of *L. kumlieni.*

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* The type in the Berlin Museum was examined in 1877 and then identified as *L. leucopterus*; but see my remarks under *L. nelsoni* (p. 287).

On the wing *L. leucopterus* has a much more buoyant flight than *L. glaucus*, and the length of wing in proportion to its comparatively small bulk is very noticeable; but prepared and overstuffed skins sometimes offer difficulties. Still, in spite of its longer wing in proportion to its bulk, the largest male *L. leucopterus* does not attain to the length of wing found in the smallest female *L. glaucus*.

Hab. Jan Mayen Island, Greenland, and perhaps the American side of Baffin Bay in summer; in winter to Iceland and the Færoes (regularly), Scandinavia, the Baltic (rarely), the British Islands, and the north-west of Europe down to the Gulf of Gascony in severe seasons; in North America down to Boston (rarely).

a. Imm. st.	English coast (*Rich*).	Purchased.
b. Juv. st.	Mount's Bay, Cornwall (*Vingoe*).	Purchased.
c. Juv. st.	Towyn, Wales.	F. Day, Esq. [P.].
d. Ad.; *e*, *f.* Vix ad.; *g*, *h.* Juv. sk.	Iceland, winter (*W. Procter*).	H. Saunders & Salvin-Godman Colls.
i, *k.* Ad. et vix ad. st.	Greenland.	Holböll Coll.
l. Juv. sk.	Newfoundland, Dec. 1892 (*Codroy*).	W. Brewster, Esq. [P.].
m. Sternum.	England.	J. Ray, Esq. [P.].

16. GABIANUS.

Type.

Gabianus, *Bruch, J. f. O.* 1853, p. 100, *ex Bp. MSS.*..... G. pacificus.

Range. Australia, including Tasmania.

1. Gabianus pacificus.

Black-backed Gull (part.), *Lath. Gen. Syn.* iii. pt. 2, p. 372 (1785: New Holland, *ex Parkinson*).

Larus marinus (part.), *Lath. Ind. Orn.* ii. p. 814 (1790: New Holland).

Pacific Gull, *Lath. Gen. Syn. Suppl.* ii. p. 332 (1801).

Larus pacificus, *Lath. Ind. Orn. Suppl.* p. lxviii (1801); *Vieill. Enc. Méth.* i. p. 345 (1823: Tasmania); *Gray, List B. Brit. Mus.*, Anseres, p. 170 (Tasmania); *id. Gen. B.* iii. p. 654 (1846); *Gould, B. Austral.* vii. pl. 19 (1848); *Reichenb. Vög. Neuholl.* ii. p. 15 & p. 345 (1850); *Licht. Nomencl. Av.* p. 99 (1854: New Holland); *Schl. Mus. P.-B.*, Lari, p. 7 (1863); *Gould, Handb. B. Austral.* ii. p. 385 (1865); *Gray, Hand-l. B.* iii. p. 111, no. 10951 (1871); *E. P. Ramsay, P. Z. S.* 1877, p. 347 (N.E. Queensland); *id. Pr. Linn. Soc. N. S. W.* 1878, p. 201; *Saunders, P. Z. S.* 1878, p. 181 (revision Larinæ); *id. Journ. Linn. Soc.* xiv. p. 397 (1878: distribution); *Salvin, Cat. Strickl. Coll.* p. 620 (1882); *Finsch, Vög. Südsee*, p. 45 (1884: Tasmania); *Legge, Pr. R. Soc. Tasman.* p. 243 (1887); *Ramsay, Tab. List Austr. B.* p. 22, no. 683 (1888); *Buller, B. New Zeal.* 2nd ed. ii. p. 49, note (1888: has never been obtained in N.Z.); *North, Nests & Eggs Austr. B.* p. 351 (1889); *Cox & Ham. Pr. Linn. Soc. N. S. W.* 1890, p. 422 (Mudgee); *Hartert, Kat. Vogelsamml. Senckenb.* p. 242 (1891: Australia).

Larus frontalis, *Vieill. N. Dict. d'Hist. Nat.* xxi. p. 505 (1818: Tasmania); *id. Enc. Méth.* i. p. 345 (1823: Tasmania); *Lesson, Traité*, p. 617 (1831: "Lewin's Land").

Larus leucomelas, *Vieill. N. Dict. d'Hist. Nat.* xxi. p. 509 (1818: adult, Tasmania); *Temm. Man. d'Orn.* ii. p. 760, note (1820); *Vieill. Enc. Méth.* i. p. 346 (1823: Tasmania).
Larus bathyrinchus (*sic*), *Macgill. Mem. Wern. Soc.* v. p. 253 (1824).
Larus georgii, *King, Surv. Intertrop. Austr.* ii. p. 423 (1826: King George's Sound, S.W. Australia).
Gabianus pacificus, *Bruch, J. f. O.* 1853, p. 100; *id. op. cit.* 1855, p. 280; *Bp. Naum.* 1854, p. 211; *id. Rev. et Mag. Zool.* 1855, p. 13; *id. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 212 (1857); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 357 (1890).
Gabianus bathyrhynchus, *Bp. Naum.* 1854, p. 211; *Bruch, J. f. O.* 1855, p. 280; *Bp. Consp. Av.* ii. p. 212 (1857).
Gabianus georgi, *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 213 (1857).

Adult male in breeding-plumage. Head, neck, and under surface white; mantle and surface of wings deep black; scapulars slightly tipped with greyish white; secondaries with broader white tips and dark lead-coloured upper parts; primaries black, rather paler on the inner webs, and with white tips from the fifth upwards; tail-coverts white; rectrices white basally and at their tips broadly banded with black on all except the outermost pair, which are white in very mature birds, and black on the inner webs in average examples: bill orange, red in front of the angle; tarsi and toes greenish yellow: "iris white" (*Legge*). Total length 25 inches, culmen 2·8, depth at the angle 1·3 to 1·4, wing 17·5 to 18, tail 8, tarsus 2·9, middle toe with claw 2·7.

Adult female. Smaller; bill not so deep and weaker.

Young. Head and hind neck nearly uniform dark brown; feathers of the mantle and tail-coverts rather paler brown, with buffish edges; primaries sooty brown, with pale tips to the inner quills, rectrices dark brown, with whitish extreme tips; under surface brown, paler on the abdomen; under wing-coverts dark brown: bill nearly black, ochraceous near the base of the under mandible; tarsi and toes yellowish brown. At a subsequent stage the forehead and throat are streaked with greyish white and brown, while the general tone of the plumage is lighter. The next year, dull white is the prevailing colour on the underparts; some black shows on the mantle; the throat and head are very boldly streaked with brown; some white begins to show at the base of the tail, and the coverts are nearly white: bill greenish basally.

Immature. Forehead and under surface chiefly white; head and neck boldly mottled with brown; mantle nearly black; tail-coverts pure white; rectrices nearly white and only mottled with greyish at their bases, otherwise as in the adult; under wing-coverts mottled brown and greyish: bill almost as in the adult, but inclined to black at the commissures.

Nestling. Greyish white, spotted with blackish on the head and mottled with dull brown on the upper surface.

This is a very remarkable species, with a superficial resemblance to *L. marinus* and *L. dominicanus*, but showing strong affinities in its wing-pattern and in the black bar on the tail to

the group of Pacific Gulls, *L. modestus* (least), *L. belcheri*, and *L. crassirostris*.

Hab. Australia and Tasmania. Three specimens in the Museum bear labels marked "N. Z.," but there is no evidence that the species has ever occurred in New Zealand: rather the contrary.

a. Juv. st.	Western Australia.	Governmt. of Western Australia [P.].
b, *c*. Ad. et imm. sk.	Port Lincoln, S. Australia.	Old Coll.
d. Juv. sk.	Adelaide (*Bridges*).	H. Saunders Coll.
e. ♀ juv. sk.	Victoria, May (*Col. W. V. Legge*).	H. Saunders Coll.
f, *g*. ♂ vix ad. et juv. sk.	Port Jackson, N. S. Wales.	Gould Coll.
h. Ad. sk.; *i*. Juv. st.	Tasmania.	R. Gunn, Esq. [P.].
k. Ad. sk.	Tasmania.	H. Saunders Coll.
l. Juv. sk.	Tasmania.	Antarctic Expd. [P.].
m. Imm. sk.	Hobart Town, N. S. Wales.	Gould Coll.
n, *o*. Ad. et juv. sk.	Lewis, N. S. Wales.	Gould Coll.
p. ♀ imm. sk.	N.E. Tasmania, Dec. (*Col. W. V. Legge*).	H. Saunders Coll.
q. Pull. st.	Actæon Isl., Tasmania.	Gould Coll.
r. Ad.; *s*, *t*. Juv. sk.	["New Zealand."]	Antarctic Expd. [P.].

17. LEUCOPHÆUS.

	Type.
Leucophæus, *Bruch**, *J. f. O.* 1853, p. 108	L. scoresbii.
Procellarus, *Bp. Naum.* 1854, p. 211	L. scoresbii.
Epitelarus, *Bp. Naum.* 1854, p. 211	L. scoresbii.

Range. That of the single species.

1. Leucophæus scoresbii.

Larus scoresbii, *Traill, Mem. Wern. Soc.* iv. p. 514 (1823: New South Shetland Islands); *Sclater, P. Z. S.* 1860, p. 391; *Abbott, Ibis*, 1861, p. 165 (Falkland Islands); *Schl. Mus. P.-Bas*, Lari, p. 33 (1863); *Pelz. Reis. Novara, Vög.* p. 151 (1865: Chiloe I., Chile); *Gray, Hand-l. B.* iii. p. 116, no. 11009; *Saunders, P. Z. S.* 1878, p. 184 (revision Larinæ); *id. Journ. Linn. Soc.* xiv. p. 397 (1878: distribution); *Milne-Edwards, Faun. Rég. australes*, chap. iv. p. 31 (1882); *Oustalet, Mission Sc. Cap Horn*, vi. p. 179, pl. 3 (1891); *Scl. Ibis*, 1894, pp. 495, 497 (Amer. Antarctica).

Larus hæmatorhynchus, *Vigors, Zool. Journ.* iv. p. 103 (1828-29); *Jard. & Selby, Ill. Orn.* ii. pl. 106 (1830); *King, Voy. 'Adv.' & 'Beagle,'* i. p. 541 (1839: Magellan Strs.); *Gould, Zool. 'Beagle,' Birds*, p. 142 (1841: Port St. Julian, Patagonia); *Gray, List B. Brit. Mus.*, Anseres, p. 170 (1844); *id. Gen. B.* iii. p. 654 (1846);

* Often cited as *Leucophæus*, Bp., and it would appear that Bonaparte, in his correspondence with Bruch, had proposed that name; but Bruch was the first, so far as I can discover, to describe the genus, which he restricted to this species; whereas Bonaparte (Naum. 1854, p. 211) also placed *Larus hœrmanni* in his genus *Leucophæus*.

Gay, Hist. Chile, Zool. i. p. 654 (1847); *Reichenb. Natatores*, tab. xxv. fig. 847 (1848).

Leucophæus hæmatorhynchus, *Bruch, J. f. O.* 1853, p. 108; *id. op. cit.* 1855, p. 287; *Bp. Naum.* 1854, p. 211; *id. C. R.* xlii. p. 771 (1856).

Chroicocephalus hæmatorhynchus, *Licht. Nomencl. Av.* p. 98 (1854: Chile).

Procellarus neglectus, *sive* Epitelarus neglectus, *Bp. Naum.* 1854, pp. 211, 213; *id. Rev. et Mag. Zool.* 1855, p. 13; *id. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 211 (1857: type of genera).

Leucophæus scoresbii, *Bp. Consp. Av.* ii. p. 231 (1857); *Blas. J. f. O.* 1865, p. 378; *Scl. & Salv. P. Z. S.* 1871, p. 579; *iid. Nomencl. Av. Neotr.* p. 148 (1873).

Adult male in breeding-plumage. Head, neck, and under surface lavender-grey, a little warmer on the upper parts, especially on the neck, where the grey deepens; mantle black, scapulars and secondaries very broadly tipped with white; primaries chiefly black, the 2nd with a minute white tip, the 3rd with more white terminally, and so on, until at the 5th a white spot appears on the inner web, and by contrast forms the black into a subterminal bar; succeeding quills with broad white tips, which increase in size upwards; tail-coverts pale grey; rectrices pure white; under wing smoke-grey: bill "arterial red" or bright cherry-colour; iris pale yellow, orbital ring white; tarsi and toes vermilion. Total length 18 inches, culmen 1·7, depth at angle 0·6, wing 13·25, tail 6, tarsus 2, middle toe with claw 2; hallux joined to the inner toe by a distinct web.

The *female* appears to be slightly smaller, but examples with the sex determined are few.

Young. Head smoke-grey; neck all round brownish; feathers of the mantle dark brown, with paler tips; secondaries almost as broadly tipped with white as in the adult; quills black, without white tips up to the 5th; tail-coverts nearly white; rectrices white, with a broad black subterminal band; under surface nearly white up to the breast, which is brownish like the neck: bill ochre-yellow at the base, blackish anteriorly; tarsi and toes livid brown.

In the next stage the head is sooty, giving the appearance of a very distinct hood by contrast with the neck, which is grey; mantle blackish in the centre; the bar on the rectrices smaller and the two outer pairs of feathers almost white; under surface pale grey.

Immature. With a strongly marked hood; otherwise like the adult, except that there is less white on the primaries and the 6th has a narrow subterminal black bar.

Nestling. Stone-grey, very closely spotted above and mottled below with blackish: altogether a very dark bird.

This is a very localized and terrestrial Gull, subsisting largely on the eggs and young of other birds during the season, molluscs, &c. In its plumage it forms a remarkable link between the Pacific group and the typical Gulls.

Hab. East Patagonia, the Falkland Islands, the New South Shetlands, and the Antarctic land beyond Cape Horn, the Straits of Magellan, and the Pacific Coast up to the Island of Chiloe.

a. Ad. st.	Berkeley Sound, East Falkland (*Antarctic Expedition*).	The Admiralty [P.].
b, *c*. ♂ ad. et juv. sk.	Falkland Islands, Aug. 1842 (*Antarctic Expedition*).	The Admiralty [P.].
d–*g*. Ad., imm., et juv. sk.	Falkland Islands (*Dr. Henston*).	H. Saunders Coll.
h, *i*. Pull. sk.	Falkland Islands, Jan. (*Cameron*).	H. Saunders Coll.
k. Pull. sk.	Falkland Islands, April (*Cameron*).	H. Saunders Coll.
l. Ad. sk.	Falkland Islands (*Dr. M. Rodgers*).	H. Saunders Coll.
m. Imm. sk.	Falkland Islands (*Capt. Abbott*).	H. Saunders Coll.
. Ad. sk.	Falkland Islands (*Falkland Islands Co.*).	Salvin-Godman Coll.
o, *p*. Ad. et imm. sk.	Falkland Islands (*Leconte*).	Salvin-Godman Coll.
q. Ad. sk.	64° S., 55° 45′ W. (*S. 'Balaena'*).	Capt. A. Fairweather [P.].
r. ♂ imm.; *s*–*u*. ♂ ♀ ad. sk.	East coast of Patagonia, 45° S., Aug. (*J. Young*).	H. Saunders Coll.
v. Ad. sk.	Straits of Magellan (*Capts. King & Fitzroy, R.N.*).	The Admiralty [P.].

(? Type of *L. hæmatorhynchus*.)

18. PAGOPHILA.

	Type.
Gavia, *Boie, Isis*, 1822, p. 563 (partim: undescribed).	
Gavia, *Boie, Isis*, 1826, p. 980	P. eburnea.
Pagophila, *Kaup, Natürl. Syst.* p. 69 & p. 196	P. eburnea.
Gavia, *Boie, Isis*, 1844, p. 191 (partim).	
Cetosparactes, *Macgill. Man. Brit. Orn.* p. 251 (1842)..	P. eburnea.
Catosparactes, *Gray, Gen. B.* iii. p. 655 note (1846) ..	P. eburnea.
Gavia, *Stejn. Pr. U.S. Nat. Mus.* v. p. 39 (1882)	P. eburnea.

Range. That of the sole representative species.

1. Pagophila eburnea.

? Larus albus, *Gunnerus, in Leem's Beskr. Finm. Lapp.* p. 285 [not p. 265 as cited by Stejneger] (1767; *nec Scop.* 1769, *nec P. L. S. Müll.* 1776).*

* Gunnerus says that he was *told of, but never saw*, "a pure white Gull intermediate in size between *L. canus* and *L. fuscus*," which he thought "might be the same as the *Senator Martensii*, described as having a black bill and black feet." Donndorff, who usually cites the notes of Gunnerus to Leem, omits all reference to the above, probably considering the identification—if such it may be called—as too vague. It seems undesirable to reject the time-honoured specific name *eburnea* on such slight ground.

Larus eburneus, *Phipps, Voy. N. Pole*, App. p. 187 (1774); *Gm. S. N.* i. p. 596 (1788); *Lath. Ind. Orn.* ii. p. 816 (1790); *Bonn. Enc. Méth.* i. p. 87 (1790); *Temm. Man. d'Orn.* p. 498 (1815); *Nilss. Orn. Suec.* p. 171 (1817); *E. Sabine, Tr. Linn. Soc.* xii. p. 348 (1819: Baffin Bay); *Leach, Thoms. Ann. of Philos.* xiii. p. 61 (1819: Baffin Bay); *id. in J. Ross' Voy. Baff. B.* App. ii. p. liv (1819); *id. op. cit.* 8vo ed. ii. p. 160 (1819); *Boie, Wiedemann's Zool. Mag.* 1819, p. 129; *Scoresby, Arct. Voy.* i. p. 535 (1820: Spitsbergen); *Temm. Man. d'Orn.* ed. 2, p. 769 (1820); *E. Sabine, Parry's 1st Voy.* Suppl. p. cciv (1821: Davis Str.); *Manby, Voy. Greenl.* p. 50 (1822); *Meyer, Zusätze Taschenb.* iii. p. 200 (1822); *Edmonst. Mem. Wern. Soc.* iv. p. 501 (1823): *Brehm, Lehrb.* p. 703 (1824); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 195 (1826); *J. C. Ross, Parry's 3rd Voy.* App. p. 104 (1826: Davis Str. & Baff. Bay); *id. Parry's 4th Voy.* App. p. 194 (1828: Spitsbergen & northward); *Vieill. Faune Franç., Ois.* p. 389 (? 1828); *Werner, Atlas, Palmipèdes*, pls. 21 & 22 (1828); *Bp. Ann. Lyc. N. Y.* ii. p. 360 (1828: Synops.); *Swains. & Rich. Faun. Bor.-Amer., Birds*, p. 419 (1831); *Selby, Brit. B.* ii. p. 497, pl. xciv (1833); *Audub. Orn. Biogr.* iii. p. 571, pl. 287 (1835); *Jenyns, Man. Vertebr.* p. 276 (1835); *Eyton, Cat. Brit. B.* p. 53 (1836); *Nuttall, Man. Orn.* ii. p. 301 (1834); *Gould, B. Eur.* v. pl. 437 (1837); *Audub. Synops.* p. 326 (1839); *Keys. & Blas. Wirb. Eur.* p. xcvi & p. 242 (1840); *Naum. Vög. Deutschl.* x. p. 341, pl. 263 (1840); *Temm. Man. d'Orn.* ed. 2, pt. 4, p. 474 (1840); *Selys-Longch. Faun. Belg.* p. 152 (1842): *Audub. B. Amer.* vii. p. 150, pl. 445 (1844); *Schl. Rev. Crit.* p. cxxvi (1844); *Yarr. Brit. B.* ed. 2, iii. p. 567 (1845); *Degl. Orn. Eur.* ii. p. 315 (1849); *Kjærb. Dansm. Fugle*, p. 337, tab. xli. (1852), and *Suppl.* tab. xxii. (1854); *Meyer, Brit. B.* vii. p. 143, pl. 306 (1857); *Naum. Vög. Deutschl., Anhang*, p. 277 (1860); *Müller, Vid. Medd.* 1862, p. 72 (1863: Færoes); *Schl. Mus. P.-Bas*, Lari, p. 6 (1863); *Malmgr. Œfv. Ak. Förh.* 1863, p. 102; *id. op. cit.* 1864, p. 385 (Spitsbergen); *Hancock, Ibis*, 1867, p. 253 (Islay l., ad.); *R. Gray, B. West Scotl.* p. 481 (1871); *Harting, P. Z. S.* 1871, p. 122 (E. side of Lancaster Sd.); *id. Handb. Brit. B.* p. 174 (1872); *Coues, Key N. Amer. B.* p. 314 (1872); *Heugl. Ibis*, 1872, p. 65 (Nova Zemlya); *Palmén, Finlands Foglar*, p. 610 (1873); *Finsch, Abh. Ver. Bremen*, v. p. 365 (1873: S. Greenl.); *Sundev. Œfv. Ak. Förh.* 1874, p. 21 (Spitsbergen); ? *Swinh. Ibis*, 1875, p. 146 (Cheefoo, Oct. 20th, seen only); *Bessels, Bull. Soc. Géogr. Paris*, 1875, p. 296; *id. Amerik. Nordpol-Exped.* p. 312 (1879: Polaris Bay); *Bunge, Mél. Biol.* xii. livr. 1, p. 49 (Lena delta); *Seebohm, Brit. B.* iii. p. 3337 (1885); *Millais, P. Z. S.* 1886, p. 137 (Caithness, adult); *Gätke, Vogelw. Helgol.* p. 582 (1891); *Collett, Ibis*, 1888, p. 440 pl. xiii. (eggs & nestling, Spitsbergen); *id. Nyt Mag. Naturv.* Bd. xxxv. p. 312 (1894: Norway).

Larus candidus, *Müller, Prodromus*, p. viii (1776); *O. Fabr. Faun. Grænl.* p. 103 (1780); *Fleming, Brit. Anim.* p. 142 (1828).

La Mouette blanche, *Buff. Hist. Nat. Ois.* viii. p. 422 (1783).

Le Goiland blanc du Spitzberge, *Daubent. Pl. Enl.* pl. 994 (1786).

Larus niveus, *Bodd. Pl. Enl.* p. 58, no. 994 (1783: *nec Pallas*); *Marmottan & Vian, Bull. Soc. Zool. Fr.* 1879, p. 249 (Crotoy).

Ivory Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 377 (1785); *Yarr. Brit. B.* iii. p. 449 (1843).

Larus albus, *Schäff. Mus. Orn.* p. 65, tab. 42 (1789).

Gavia eburnea, *Boie, Isis*, 1822, p. 563; *Brehm, Vög. Deutschl.* p. 765

(1831); *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *Gray, List Gen. B.* p. 79 (1841); *Bp. Cat. Ucc. Eur.* p. 77 (1842).

Pagophila eburnea, *Kaup, Natürl. Syst.* pp. 68, 69, & p. 196 (1829: type of genus); *Gray, List Gen. B.* ed. 1841, p. 99 & App. p. 15 (1842); *id. List B. Brit. Mus.*, Anseres, p. 174 (1844); *id. Gen. B.* iii. p. 654, pl. 180. fig. 1 (1846); *Reichenb. Syst. Nat.* tab. v. (1850); *id. Av. Syst. Nat., Longip.* p. v (1852); *Licht. Nomencl. Av.* p. 99 (1854); *Bruch, J. f. O.* 1853, p. 106; *Bp. Naum.* 1854, p. 212; *Brehm, Naum.* 1855, p. 295; *Bp. C. R.* xlii. p. 771 (1856); *id. Consp. Av.* ii. p. 230 (1857); *Carte, Jr. R. Dubl. Soc.* i. p. 57, pls. 1 & 2 (1856: Prince Patrick I., egg); *Baird, Cass., & Lawr. B. N. Amer.* p. 856 (1858); *Evans & Sturge, Ibis*, 1859, p. 171 (West. Spitsbergen); *Reinhardt, op. cit.* 1861, p. 18 (Greenland); *A. Newton, Ibis*, 1865, p. 507 (Spitsbergen); *Gray, Cat. Brit. B.* p. 237 (1863); *E. P. Wright, Ibis*, 1866, p. 216 (Prince Patrick I.); *Degl. & Gerbe, Orn. Eur.* ii. p. 405 (1867); *Loche, Expl. Sc. Algér., Ois.* ii. p. 188 (1867: Algeria [?]); *Fritsch, Vög. Eur.* p. 464, tab. 55. figs. 3 & 5 (1870); *Gillett, Ibis*, 1870, p. 306 (Novaya Zemlya); *Gray, Hand-l. B.* iii. p. 117, no. 11015 (1871); *Collett, Forh. Selsk. Christ.* 1873, p. 297 (N. Norway); *Pelz. Ibis*, 1873, p. 52 (*ex Leverian Mus.*); *Gould, B. Gt. B.* v. pl. 62 (1873); *A. Newton, Arctic Man.* p. 105 (1875); *Dresser, B. Eur.* viii. p. 349, pl. 595 (1877); *Collett, N. Mag. Naturv.* 1877, p. 210 (N. Norway); *Feilden, Ibis*, 1877, p. 409 (Smith Sound); *id. Zool.* 1878, p. 417; *id. op. cit.* 1879, p. 8 (Pr. Albert Land); *Saunders, P. Z. S.* 1878, p. 162 (revision Larinæ); *Kumlien, Bull. U.S. Nat. Mus.* no. 15, p. 99 (1879: Cumberland Sound); *Brewster, Bull. Nutt. Orn. C.* p. 187 (1881: New Brunswick); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 51 (1881); *Feilden in Markham's Polar Reconn.* p 334 (1881: Novaya Zemlya); *id. Tr. Norw. Soc.* iii. pp. 209–211 (1881: Franz-Josef Ld.); *M. Chamberlain, Bull. N. H. Soc. N. Brunsw.* 1882, p. 61; *W. H. Neale, P. Z. S.* 1882, p. 653 (Franz-Josef Land); *Coues, Check-l. N. Amer. B.* p. 122 (1882); *B. O. U. List Brit. B.* p. 186 (1883); *Nelson, Cruise 'Corwin,'* p. 104 (1883); *Tacz. Bull. Soc. Zool. Fr.* 1883, p. 341 (ad., Kamtschatka); *Ridgw. Cat. Fish. Exhib.* 1883, p. 29 (Cumberland Sd.); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 656 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 198 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 749 (1884); *A. Chapman, Tr. N. H. Soc. Northumb.* viii. pt. 1, p. 155 (1884: Spitsbergen, breeding); *Cocks, Zool.* 1884, p. 13 (Spitsbergen); *Homeyer, Ornis*, 1885, p. 80 (Germany); *Murdoch, Rep. Pt. Barrow*, p. 122 (1885: rare); *Gröndal, Ornis*, 1886, p. 37 (Iceland, once); *Feilden, Tr. Norw. Soc.* iv. p. 351 (1887: Digges I., Hudson Bay); *Palmén, Vega-Exped. Vetensk.* Bd. v. p. 356 (1887: all along Siberian Coast); *Saunders, Man. Brit. B.* p. 669 (1889); *Riesenth. Wasservög. Mitteleurop.* p. 137 (1889); *Buckley & H-Br. Faun. Orkney Is.* p. 229 (1891); *iid. Faun. Argyll & Inn. Hebr.* p. 189 (1892); *Fatio & Studer, Cat. Ois. Suisse*, p. 62 (1892: Lake Léman); *Lilford, Col. Figs. Brit. B.* pt. xxvi. (1893).

Gavia nivea, *Brehm, Vög. Deutschl.* p. 766 (1831).

Cetosparactes eburneus, *Macgill. Man. Br. Orn.* pt. ii. p. 252 (1842); *id. Brit. B.* v. p. 508 (1852).

Larus brachytarsus, *Holb. Fn. Grönl.* p. 52 (1846).

Pagophila brachytarsa, *Bruch, J. f. O.* 1853, p. 106; *Bp. Naum.* 1854, p. 212; *Lawr. B. N. Amer.* p. 856 (1858: cf. *Reinht. Ibis*, 1861, p. 18).

Pagophila nivea, *Bp.* (*nec* L. niveus, *Pall.*) *C. R.* xlii. p. 771 (1856); *Bp. Consp. Av.* ii. p. 230 (1857).
Larus (Pagophila) eburnea, *Coues, B. N.-West*, p. 648 (1874).
Gavia alba, *Stejn. Pr. U.S. Nat. Mus.* v. p. 39 (1882); *A. O. U. Check-l. N. Amer. B.* p. 86 (1886); *Ridgw. Man. N. Amer. B.* p. 24 (1887); *Nelson, Rep. Birds Alaska*, p. 49 (1887); *Greely, Rep. Exped. Lady Frankl. Bay*, ii. p. 22 (1888); *Chamberl. Auk*, 1889, p. 213 (S. Greenld.); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 62 (1889); *Heine & Reichenow, Nomencl. Mus. Hein.* p. 360 (1890); *Hagerup, B. Greenld.* p. 46 (1891); *Stone, Pr. Philad. Acad.* 1892, p. 148 (Melville Bay); *Taczan. Mém. Acad. St. Pétersb.* xxxix. p. 1055 (1893: E. Siberia, down to Petropaulovski).

Adult male in breeding-plumage. Entire body ivory-white: bill gamboge-yellow terminally, merging into greenish grey on the basal two-thirds of both mandibles; iris dark hair-brown; orbital ring brick-red (*Feilden*); tarsi and toes black. Total length 18 inches, culmen 1·7, wing 13 to 13·5, tail 6, tarsus 1·5 to 1·6, middle toe with claw 1·6, the nail being long and well developed.

Female. Similar, but rather smaller, and—so far as can be judged from a small number of "sexed" specimens—with a tendency to shortness of tarsus.

Young. Dark grey on the cheeks and chin, with spots of the same colour on the upper surface, especially on the wings; primaries tipped with blackish, and rectrices with a dull black subterminal band; the rest of the plumage white: bill horn-colour, paler terminally. The spots diminish with increasing age.

Nestling. White. The *Fledgling* is said to be of a dull or smoke-grey colour.

Hab. Circumpolar regions, without any break of continuity; but along those portions of the coast of Arctic America, where open water is non-existent, the bird is, naturally, scarce; rare also in the North Pacific. In winter southwards, as far as the north of France and Lake Léman (once), and New Brunswick, in America.

a. Juv. sk.	Yorkshire.	
b. Ad. st.	Penzance, Feb. 15, 1847 (*Vingoe*).	Purchased.
c. ♀ ad. sk.	Sandoë, Færoes, Feb. 12 (*H. C. Müller*).	H. Saunders Coll.
d. Juv. sk.	Archangel (*Henke*).	R. B. Sharpe [P.].
e. Ad. sk.; *f, g.* Juv. st.	Arctic Regions.	Purchased.
h. Ad. sk.	Arctic Seas.	The Admiralty [P.].
i. Ad. sk.	Arctic Seas.	
k. ♂ ad. sk.	Storfjord, Spitsbergen, Aug. 1864 (*A. Newton*).	Gould Coll.
l. Ad. sk.	Spitsbergen (*J. Lamont*).	H. Saunders Coll.
m. Ad. sk.	Lat. 79° 45′ N., long. 4° E.	Capt. D. Gray [P.].
n. Ad. sk.	Greenland.	Sir E. Parry [P.].
o, p. Juv. sk.	Greenland.	Tweeddale Coll.
q, r. ♂ juv. sk.	Greenland.	Hume Coll.
s. Juv. sk.	Greenland (*E. Whymper*).	H. Saunders Coll.
t. Imm. sk.	Whalefish or Kron Prinz Is., Davis Strait (*Parry's 3rd Voyage*).	The Admiralty [P.].

u. ♂ ad. sk.	Davis Strait, 73° N. lat. (*Parry's 3rd Voyage*).	The Admiralty [P.].
v. Juv. sk.	Nanortalik, Greenland, Jan.	H. Saunders Coll.
w. ♀ ad. sk.	Dobbin Bay, Greenland, Aug. 28, 1876 (*Col. Feilden*).	H.M.S. 'Alert' Exped. [P.].

19. RISSA.

Type.

Gavia, *Boie, Isis*, 1822, p. 563 (partim).
Rissa, *Stephens, ex Leach MS. in Shaw's Gen. Zool.* xiii. pt. 1, p. 180 (1826) ..... R. tridactyla.
Cheimonea, *Kaup, Natürl. Syst.* p. 84 (1829) ..... R. tridactyla.

Range. Arctic and Sub-Arctic regions: in winter down to about 30° N. lat.

Key to the Species.

a. Tarsi and toes dark brown to blackish; under wing-coverts white; young with a strongly-marked black band from the carpal joint to the long inner secondaries, and a black band on the tail ..... *tridactyla*, p. 305.
b. Tarsi and toes vermilion; under wing-coverts grey; young with no black band on the wing nor on the tail; bill shorter; mantle darker .. *brevirostris*, p. 312.

1. Rissa tridactyla.

The Coddy Moddy, *Albin, Nat. Hist. B.* ii. p. 80 (1740: imm.).
La Mouette cendrée tachetée, *Brisson, Orn.* vi. p. 185, pl. xvii. fig. 2 (1760); *Daubent. Pl. Enl.* pl. 387 (1786).
La Mouette d'hiver, *Briss. Orn.* vi. p. 189 (1760).
Larus rissa, *Linn. Syst. Nat.* i. p. 224 (1766); *Phipps, Voy. N. Pole*, App. p. 187 (1774); *P. L. S. Müll. S. N., Anhang*, p. 344 (1776); *Bechst. Naturg. Deutschl.* ii. p. 804 (1791); *Pallas, Zoogr. Rosso-Asiat.* ii. p. 321 (1811: Kamschatka); *Leach, Syst. Cat. Brit. Mus.* p. 40 (1816); *id. in J. Ross's Voy. Baff. Bay*, 8vo ed. ii. App. p. 159 (1819); *Scoresby, Arct. Voy.* i. p. 534 (1820); *Fleming, Brit. Anim.* p. 141 (1828); *Selby, Brit. B.* ii. p. 493, pl. xciv. (1833); *Gould, B. Eur.* v. pl. 435 (1837); *Meyer, Brit. B.* vii. p. 139, pl. 305 (1857); *Huxley, P. Z. S.* 1867, p. 430, fig. 2 (skull).
Larus tridactylus, *Linn. Syst. Nat.* i. p. 224 (1776); *P. L. S. Müller, S. N., Anhang*, p. 344 (1776); *O. Fabr. Faun. Grœnl.* p. 98 (1780); *Retzius, F. Suec.* p. 154 (1780); *Mohr, Island. Naturh.* p. 41 (1786); *Gm. S. N.* i. p. 596 (1788); *Lath. Ind. Orn.* ii. p. 817 (1790); *Bechst. Naturg. Deutschl.* ii. p. 804 (1791); *Meyer u. Wolf, Taschenb.* ii. p. 486 (1810); *Temm. Man. d'Orn.* p. 502 (1815); *Meisner u. Schinz, Vög. Schweiz*, p. 275 (1815); *Meyer, Vög. Liv- u. Esthl.* p. 236 (1815); *Nilss. Orn. Suec.* ii. p. 174 (1817); *E. Sabine, Tr. Linn. Soc.* xii. p. 549 (1819: Greenland); *Leach in J. Ross's Voy. Baffin Bay*, App. ii. p. liii (1819: 4to ed.); *Temm. Man. d'Orn.* 2nd ed. p. 774 (1820); *E. Sabine in Parry's 1st Voy.* Supp. p. ccv (1821: Davis Str.); *Joseph Sabine in Franklin's Polar Sea*, App. p. 695 (1823: Hudson Bay); *Brehm, Lehrb.* p. 705 (1824); *J. C. Ross, in Parry's 3rd Voy.* App. p. 105 (1826: Cliffs of N. Somerset Ld.); *Vieill. Faune Franç.*,

Ois. p. 390 (1828); *Bp. Ann. Lyc. N. Y.* ii. p. 359 (1828); *Werner, Atlas, Palmipèdes*, pl. 25 (1828); *J. C. Ross in Parry's 4th Voy.* App. p. 195 (1828: 82½° N., beyond Spitsbergen); *Suri, Orn. Tosc.* iii. p. 70 (1831); *Swains. & Rich. Faun. Bor.- Amer., Birds*, p. 423 (1831); *Ménétr. Cat. Rais. Cauc.* p. 56 (1832); *Kittl. Isis*, 1832, p. 1104 (N.W. America); *Nuttall, Man. Orn.* ii. p. 298 (1834); *Jenyns, Man. Brit. Vertebr.* p. 274 (1835); *Audub. Orn. Biogr.* iii. p. 186 (1835); *id. Synop.* p. 326 (1839); *Naum. Vög. Deutschl.* x. p. 322, pl. 262 (1840); *Crespon, Orn. Gard*, p. 487 (1840); *Keys. u. Blas. Wirb. Eur.* p. xcv and p. 242 (1840); *Nordm. in Démid. Voy. Russ. Mérid.* iii. p. 281 (1840: Odessa, once); *Selys-Longch. Faun. Belg.* p. 153 (1842); *Schl. Rev. Crit.* p. cxxvi (1844); *Crespon, Faune Mérid.* ii. p. 125 (1844); *Mühle, Orn. Griechenl.* p. 140 (1844); *Audub. B. Amer.* 8vo ed., vii. p. 146, pl. 444 (1844); *Giraud, B. Long I.* p. 361 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 562 (1845); *Hewits. Eggs Brit. B.* ii. p. 439, pl. 124 (1846); *Degl. Orn. Eur.* ii. p. 316 (1849); *Thomps. B. Irel.* iii. p. 340(1851); *Kjærb. Danm. Fugle*, p. 338, tab. xli. (1852); *Bruch, J. f. O.* 1853, p. 103; *id. op. cit.* 1855, p. 284 (critical); *Schl. Vog. Nederl.* p. 599, pls. 350, 351 (1854); *Baily, Orn. Savoie*, iv. p. 316 (1854: Lac du Bourget); *A. Armstrong, N.-W. Pass.* '*Investigator*,' p. 347 (1857: Pr. Albert Ld.); *Jones, Nat. Bermuda*, p. 92 (1859); *Linderm. Vög. Griechenl.* p. 174 (1860); *Coinde, Rev. et Mag. Zool.* 1860, p. 401 (Aleutian Is.); *Schl. Dier. Nederl. Vogels*, p. 236 (1861); *Schl. Mus. P.-Bas*, Lari, p. 31 (1863); *Müller, Vid. Meddel.* 1862, p. 70 (1863: Færoes); *Wright, Ibis*, 1864, p. 151 (Malta); *Degl. et Gerbe, Orn. Eur.* ii. p. 428 (1867); *Malmgr. Œfv. K. Vet.-Akad. Stockh.* 1863, p. 104; *id. op. cit.* 1864, p. 387 (Spitsbergen); *Borggr. Vogelf. Norddeutschl.* p. 142 (1869); *R. Gray, B. West Scotl.* p. 478 (1871); *Heugl. Ibis*, 1872, p. 65 (Novaya Zemlya); *Godman, t. c.* p. 222 (Canaries); *Harting, Handb. Brit. B.* p. 77 (1872); *Coues, Key N. Amer. B.* p. 314 (1872); *Finsch, Abh. Ver. Brem.* v. p. 366 (1873: S. Greenland); *Palmén, Finlands Fogl.* p. 608 (1873); *Sundev. Œfv. K. Vet.-Akad. Stockh.* 1874, p. 21 (Spitsbergen); *Bessels, Bull. Soc. Géogr. Paris*, 1875, p. 296 (Thank-God Harbour); *Merriam, B. Conn.* p. 132 (1877); *E. Adams, Ibis*, 1878, p. 440 (Alaska); *Bessels, Amerik. Nordpol-Exp.* p. 312 (1879: Smith Snd., 81° 40′ N.); *Rodd, B. Cornw.* p. 169 (1880); *Rochebr. Faune Sénég., Ois.* p. 335 (1884: Cape Verd) [?]; *Radde, Orn. Cauc.* p. 479 (1884: Caspian ?); *Collins, Rep. Fisheries (U. S. A.)* for 1882, p. 330 (1884: Grand Banks); *Seebohm, Ibis*, 1884, p. 32 (Kuril Is.); *id. Hist. Brit B.* iii. p. 340 (1885); *Booth, Rough Notes*, iii. (1887); *Seebohm, B. Japan. Emp.* p. 294 (1890); *Stevenson & Southw. B. Norfolk*, iii. p. 334 (1890); *Gätke, Vogelw. Helgol.* p. 575 (1891); *Jäckel & Blasius, Vög. Bayerns*, p. 359 (1891).

Larus nævius, *Linn. Syst. Nat.* i. p. 225 (1766); *Schäff. Mus. Orn.* p. 64 (1789).

The Common Gull (part.), *Pennant, Brit. Zool.* p. 142, pl. L 3 (1766).

The Tarrock, *Pennant, Brit. Zool.* p. 142 (1766); *id. op. cit.* 2nd ed. pp. 424 & 425 (1788); *Bewick, Birds*, ii. p. 210 (1821).

Larus albus, *P. L. S. Müller, Natursystem*, p. 108 (1776) (based on Brisson's Mouette cendrée tachetée).

Larus cinerarius (*nec Linn.*), *O. Fabr. F. Grœnl.* p. 101 (1780).

La Mouette tachetée ou le Kutgeghef, *Buff. Hist. Nat. Ois.* viii. p. 424 (1783).

Tarrock Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 392 (1785); *id. Gen. Syn. Suppl.* i. p. 266 (1787).
Kittiwake Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 393 (1785); *Yarr. Brit. B.* iii. p. 444 (1843).
Winter Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 384 (1785).
Larus riga, *Gm. S. N.* i. p. 594 (1788).
Larus torquatus, *Pallas, Zoogr. Rosso-Asiat.* ii. p. 328 (1811: Baltic and White Sea).
Larus gavia, *Pallas, Zoogr. Rosso-Asiat.* ii. p. 329 (1811: Baltic and White Sea; not in Black Sea or Caspian).
The Kittiwake, *Bewick, Brit. B.* ii. p. 209 (1821).
Gavia tridactylus, *Boie, Isis*, 1822, p. 563.
Rissa brunnichii, *Stephens, ex Leach MS. in Shaw's Gen. Zool.* xiii. pt. 1, p. 181, pl. 21 (1826), type of genus *Rissa*.
Cheimonea tridactyla, *Kaup, Natürl. Syst.* p. 84 and p. 196 (1829), type of genus; *Heine & Reichenow, Nomencl. Mus. Hein.* p. 360 (1889).
Laroides tridactylus, *Brehm, Vög. Deutschl.* p. 754 (1831).
Laroides rissa, *Brehm, Vög. Deutschl.* p. 755 (1831).
Laroides minor, *Brehm, Vög. Deutschl.* p. 756 (1831).
Rissa cinerea, *Eyton, Cat. Brit. B.* p. 52 (1836).
Rissa tridactyla, *Bp. Comp. List B. Eur. & N. Amer.* p. 62 (1838); *Gray, List Gen.* p. 79 (1840); *id. op. cit.* ed. 1841, p. 99; *Macgill. Man. Brit. Orn.* p. 249 (1842); *Gray, List B. Brit. Mus.*, Anseres, p. 174 (1844); *id. Gen. B.* iii. p. 655, pl. 180. fig. 6 (1846); *Reichenb. Syst. Nat.* tab. v. (1850); *id. Av. Syst. Nat., Longip.* pp. iv, v (1852); *Macgill. Hist. Brit. B.* v. p. 515 (1852); *Licht. Nomencl. Av.* p. 99 (1854); *Brehm, Naum.* 1855, p. 294; *id. Vogelfang*, p. 341 (1855); *Bp. C. R.* xlii. p. 771 (1856); *id. Consp. Av.* ii. p. 225 (1857); *Hartl. Orn. Westafr.* p. 253 (1857: Senegal); *Baird, Cass., & Lawr. B. N. Amer.* p. 854 (1858); *Reinh. Ibis*, 1861, p. 18 (Greenland); *Newton, in Baring-Gould's Iceland*, p. 418 (1863); *Gray, Cat. Brit. B.* p. 236 (1863); *Salvad. Ucc. Sard.* p. 131 (1864); *Newton, Ibis*, 1865, p. 508 (Spitsbergen); *Blasius, J. f. O.* 1865, p. 384 (critical); *Godman, Ibis*, 1866, p. 103 (Azores); *id. Azores*, p. 38 (1870); *Loche, Expl. Sci. Algér., Ois.* ii. p. 185 (1867); *Doderl. Avif. Sicil.* p. 240 (1869); *Dall & Bann. Tr. Chic. Acad.* i. p. 305 (1869: Alaska); *Fritsch, Vög. Eur.* p. 464, tav. 56. fig. 9 (1870); *Blake-Knox, Zool.* s. s. pp. 2119–2124 (1870: plumage); *Gillett, Ibis*, 1870, p. 306 (Novaya Zemlya); *Saunders, op. cit.* 1871, p. 400 (Spain); *Gray, Hand-l. B.* iii. p. 117, no. 11017 (1871); *Salvad. Faun. Ital., Ucc.* p. 291 (1872); *Gould, B. Gt. Brit.* v. pl. 61 (1873); *Collett, Forh. Selsk. Christian.* 1873, p. 297 (N. Norway); *Heugl. Orn. Nordost-Afr.* Bd. ii. pt. 2, p. 1415 (1874: Egypt in winter); *Dall, Avif. Alcut. Is.* p. 9 (1874); *Newton, Arctic Man.* p. 106 (1875); *Irby, Orn. Str. Gibr.* p. 212 (1875); *Collett, N. Mag. Naturv.* 1877, p. 211 (Norway); *Feilden, Ibis*, 1877, p. 409 (below Smith Sound); *Saunders, P. Z. S.* 1878, p. 163 (revision); *id. Journ. Linn. Soc.* xiv. p. 394 (1878: distribution); *Kumlien, Bull. U.S. Nat. Mus.* xv. p. 99 (1879: Cumberland Sound); *Blakist. & Pryer, Tr. As. Soc. Japan*, 1880, p. 190; *H. C. Hart, Zool.* 1880, p. 207 (78° N. lat.); *Giglioli, Ibis*, 1881, p. 219 (Italy); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 51 (1881); *Feilden, in Markham's Polar Reconn.* p. 334 (1881: Novaya Zemlya); *id. Tr. Norw. Soc.* iii. p. 209 (1881: Franz-Josef Land); *Coues, Check-l. N. Amer.*

B. p. 121 (1882); *Taczan. Bull. Soc. Zool. France*, 1882, p. 398 (Kamschatka &c.): *M. Chamberlain, B. New Brunsw.* p. 61 (1882); *W. H. Neale, P. Z. S.* 1882, p. 654 (Franz-Josef Ld.); *Brewster, Pr. Boston Soc. N. H.* 1883, p. 398 (Gulf of St. Lawrence); *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1883: Labrador); *Saunders, Ibis*, 1884, p. 391 (Gulf of Gascony); *id.* 4th ed. *Yarr. Brit. B.* iii. p. 650 (1884); *Coues, Key N. Amer. B.* 2nd ed. p. 748 (1884); *Brewster, Pr. Bost. Soc. N. H.* xxii. p. 398 (1884: Gulf of St. Lawrence); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 202 (1884); *Homeyer, Ornis*, 1885, p. 80; *Torre & Tschus. t. c.* p. 561 (Hungary); *Albarda, t. c.* p. 630 (Holland); *A. O. U. Check-l. N. Amer. B.* p. 86 (1886); *Gröndal, Ornis*, 1886, p. 371 (Iceland); *Olphe-Gall. Contrib. Faune Occid. Eur.* fasc. x. p. 82 (1886); *Fischer & Pelz. Mitt. orn. Ver. Wien*, 1886, p. 211 (Jan Mayen I.); *transl. W. E. Clarke, Zool.* 1890, p. 48; *Giglioli, Avif. Ital.* p. 427 (1886); *id.* 1° *Resoc. Av. Ital.* p. 51 (1889); *id.* 2° *Resoc. Av. Ital.* p. 660 (1890); *Salvad. Ucc. Ital.* p. 289 (1887); *H-Brown & Buckl. Faun. Sutherl. &c.* p. 234 (1887); *id. Faun. Outer Hebr.* p. 150 (1888); *Ridgw. Man. N. Amer. B.* p. 25 (1887); *Schneider, Ornis*, 1887, p. 551 (Upp. Alsace); *Feilden, Tr. Norw. Soc.* iv. p. 351 (1887: Labrador); *Tait, Ibis*, 1887, p. 396 (Portugal); *Taczan. Ornis*, 1888, p. 508 (Poland); *Cooke, B. Migr. Mississip. Vall.* p. 55 (1888: Great Lakes); *Greely, Rep. Exped. Lady Frankl. Bay*, ii. p. 22 (1888: Fort Conyer, Grinnell Ld.); *Saunders, Man. Brit. B.* p. 667 (1889); *Bishop, Auk*, 1889, p. 145 (Magdalen Is.); *M. Chamberl. Auk*, 1889, p. 213 (S. Greenland); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 62 (1889); *Riesenthal, Wasservög. Mitteleur.* p. 137 (1889); *Brusina, Orn. Croatia*, p. 94 (1889); *Keller, Orn. Carinthiæ*, p. 302 (1890); *Buckley & H-Brown, Faun. Orkney Is.* p. 234 (1891); *Saunders, Ibis*, 1891, p. 188 (L. Léman); *Borrer. B. Sussex*, p. 273 (1891); *Hagerup, B. Greenl.* p. 46 (1891); *W. E. Clarke, Ibis*, 1892, pp. 442–447 (rudimentary hallux); *Stone, Pr. Philad. Acad.* 1892, p. 149 (*Melville Bay*); *H-Brown & Buckl. Faun. Argyll &c.* p. 193 (1892); *Hartert, Ibis*, 1892, p. 520 (E. Prussia, winter); *D'Urb. & Mathew, B. Devon*, p. 371 (1892); *Macphers. B. Lakeland*, p. 437 (1892); *White, Auk*, 1893, p. 222 (Mackinac I., Michigan); *Meade-Waldo, Ibis*, 1893, p. 206 (Canaries); *Lilford, Col. Figs. B. Brit. Is.* pt. xxiv. (1893); *Lilford, B. Northampt.* p. 406 (1893); *Tacz. Mém. Acad. St. Pétersb.* xxxix. p. 1049 (1893: E. Siberia); *Collett, Nyt Mag. f. Naturv.* Bd. xxx. p. 312 (Norway); *Bagg, Auk*, 1894, p. 162 (Oneida Lake); *Ussher, Pr. R. Irish Acad.* (3) iii. p. 410 (1894); *Pearson & Bidwell, Ibis*, 1894, p. 236 (N. Norway); *Mathew, B. Pembrokesh.* p. 103 (1894).

Larus brachyrhynchus (*nec Gould*), *Bruch, J. f. O.* 1853, p. 103.

Larus niveus (*nec Pallas*), *Bruch, J. f. O.* 1855, p. 285.

Rissa borealis, *Brehm, Naum.* 1855, p. 294; *id. Vogelf.* p. 341 (1855).

Rissa minor, *Brehm, Naum.* 1855, p. 294; *id. Vogelf.* p. 341 (1855).

Rissa gregaria, *Brehm, Naum.* 1855, p. 294; *id. Vogelf.* p. 341 (1855).

Rissa kotzebui, *Bp. C. R.* xlii. p. 771 (1856); *id. Consp. Av.* ii. p. 226 (1857); *Elliot, New & Unfig. B. N. Amer.* ii. pl. 54 (1869); *Gray, Hand-l. B.* iii. p. 117, no. 11019 (1871).

Xema tridactylum, *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 393 (1859).

Larus (Rissa) tridactylus, *Droste, Vogelw. Borkum*, p. 344 (1869); *Coues, B. N.-West*, p. 644 (1874); *Palmén, Vega-Exped. Vetensk.* Bd. v. p. 358 (1887: Siberian Coast).

Larus tridactylus, var. kotzebui (*Bp.*), *Coues, in Elliott's Rep. Prybiloff Group, Orn.* no. 552 (1873); *id. B. N.-West*, p. 646 (1874); *Elliott, Seal Is. of Alaska*, p. 132 (1882).

Rissa tridactyla kotzebui, *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 51 (1881); *Bean, Pr. U.S. Nat. Mus.* 1882, p. 167 (Bering Sea); *Coues, Check-l. N. Amer. B.* p. 122 (1882); *Ridgw. Cat. Aquat. B. Fish. Exhib.* p. 29 (1883); *Nelson, Cruise 'Corwin,'* p. 105 (1883: Bering Sea); *Coues, Key N. Amer. B.* 2nd ed. p. 748 (1884); *Goss, Auk*, 1885, p. 222 (Washington Terr.); *Southw. & Jenks, t. c.* p. 313 (Nicasio, California).

Rissa tridactyla pollicaris, *Stejn., in Baird, B., & Ridgw. Water-B. N. Amer.* ii. p. 402 (1884); *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 78 (1885: Commander Is.); *A. O. U. Check-l. N. Amer. B.* p. 86 (1886); *Ridgw. Man. N. Amer. B.* p. 25 (1887); *Turner, Auk*, 1885, p. 158 (Alaska); *id. Contrib. N. H. Alaska*, p. 124 (1886); *Nelson, Rep. N. H. Alaska*, p. 49 (1878); *Palmén, Vega-Exped. Vetensk.* Bd. v. p. 361 (1887: Bering Sea); *R. H. Lawr. Auk*, 1892, p. 353 (Washington Terr.); *Allen, op. cit.* 1893, p. 123 (distribution); *Ridgw. Pr. U.S. Nat. Mus.* xvi. p. 663 (1893: Alaska); *Tacz. Mém. Acad. St. Pétersb.* xxxix. p. 1052 (1893; E. Siberia).

Rissa pollicaris, *Stejn. Auk*, 1888, p. 310 (critical).

Adult in breeding-plumage. Head, neck, rump, tail, and entire underparts white; mantle slate-grey, the scapulars edged with greyish white; secondaries broadly edged with white; shafts of primaries ash-colour; quills chiefly grey, but the outer web black in the 1st, grey in the others; terminal portions of 1st to 3rd primaries black; 4th quill with the extreme tip white, surmounted by a black bar, and the 5th similar, with a narrower bar; in the 6th there is sometimes a subterminal black bar varying in breadth, and at other times a mere black speck the size of a pin's head on the outer web, while in mature birds the entire feather is spotless grey*, with whitish inner margins, as are the succeeding primaries and the upper parts of all: bill yellow, with a greenish tinge; tarsi blackish, toes dark brown. Total length 15·5 inches, culmen 1·8, wing 12, tail 5 (the second pair of feathers from the outside a trifle longer than the rest), tarsus 1·4, middle toe with claw 1·85. The sexes are alike externally.

Adult in winter. Similar, but with a trace of dark grey round the orbits; on the head and neck some slate-colour, which is pale on the crown, deepens on the nape, where it almost forms a band, becomes blackish at the auriculars, and passes into white on the shoulders: bill with a more olive tint.

Immature. Like the above, but with black on both webs and over the greater part of the four outer primaries, only the inner portions of which are white; the 5th primary greyish white with a broad subterminal black bar and a minute white tip; the 6th with a narrower bar and a larger white tip; an oval black patch about the middle of the outer web of the longest inner secondary: bill still more olive-colour.

Young. Similar, but with a more distinct and blacker half-collar

* This applies to examples from Alaska and the N. Pacific as much as to specimens from the Atlantic.

on the nape followed by a greyish interval, and then a broad black band, with irregular edges, across the shoulders and for some distance on each side of the neck; carpal joint and wing-coverts thickly mottled with blackish, and the long inner secondaries streaked with black along the greater part of the outer webs contiguous to the shafts; 7th primary often plain, but sometimes with a minute black spot on the outer web; tail with a terminal black bar which is broad on all except the outside rectrices: bill and tarsi dark brown (with a reddish tinge in life).

Downy nestling. Buff on the nape, shading into dark grey on the back; underparts white; toes brown, webs yellowish.

Birds from Bering Sea and the North Pacific are on average a trifle larger than those from the Atlantic, and they exhibit, as a rule, a little more development of the usually diminutive hind-toe. Sometimes there is even a very minute but sharply pointed nail on each hind-toe, though often on one only. This development is not confined to examples from the North Pacific, for it has been found in birds from the British Islands, Greenland, and the eastern side of North America. Birds which exhibit this characteristic have been separated specifically or subspecifically under the names of *Rissa kotzebui* and *Rissa pollicaris*. It has even been asserted that some examples from the Pacific coast have the hind-toe and claw as fully developed as in typical *Larus*; but this bold statement may be owing to the fact that at least one such bird authoritatively called *Rissa tridactyla pollicaris* is not a *Rissa* at all, but a bird of the *Larus canus* section. Dr. Palmén finds that Kittiwakes from the North Pacific have always some black on the 6th primary; but this is not borne out by our Museum series, in which there are several Aleutian and Alaskan birds with the 6th primary as spotless as the 7th is.

Hab. Circumpolar, Arctic, and Sub-Arctic regions in summer—from as far north as man has penetrated to the north of Spitsbergen, and up to 81° 40′ in Smith Sound—down to the north-west of France, the Gulf of St. Lawrence on the Atlantic side, and the Kuril Islands in the Pacific (breeding); in winter southward to the Mediterranean, inland waters down to the Caspian, the Canaries, Bermuda, and along both sides of America to about 35° N. lat. The record of circumpolar continuity is complete between the North Cape and Bering Strait, by way of Siberia and the islands to the north, while in Arctic America it is only defective as regards the small interval between Prince Albert Land and Point Barrow.

a. Vix ad. sk.	Scotland, autumn plumage.	Col. Montagu [P.].
b, c. Ad. sk.	Orkneys (*Hubbard*).	Salvin-Godman Coll.
d, e. Pull. st.	Orkneys, July (*J. Dunn*).	Purchased.
f, g. Ad. et pull. sk.	Orkneys, June, July (*J. Dunn*).	H. Saunders Coll.
h. ♂ ad. st.	Hoy, Orkneys (*J. Baker*).	Purchased.
i, k. Ad. st.	Hebrides, summer.	Theodore Walker, Esq. [P.].
l, m. Ad. st.	Bass Rock, Firth of Forth, summer.	J. H. Gurney, Esq. [P.].

n. ♂ ad. sk.	Farne Islands, April 25th.	J. H. Gurney, Esq. [P.].
o–s. Ad.; *t*. Juv. sk.	Flamborough Head, autumn.	Lord Londesborough [P.].
u. ♂ juv. sk.	Off Dogger Bank, Jan.	H. Saunders Coll.
v. ♂ juv. sk.	Wells, Norfolk, Nov.	R. B. Sharpe, Esq. [P.].
w. ♂ juv. sk.	Cookham, Berks, Jan. (*W. Briggs*).	Tweeddale Coll.
x. Ad. sk.	Brighton, autumn.	F. Bond, Esq. [P.].
y. Juv. sk.	Brighton, Sept. (*J. E. Harting*).	H. Saunders Coll.
z. Pull. sk.	Lundy Isl., N. Devon, July.	H. Saunders Coll.
a', *b'*. Ad. et juv. st.	Torquay, autumn.	C. Coningham, Esq. [P.].
c'. Ad. sk.	Torbay, autumn (*J. W. Lloyd*).	Seebohm Coll.
d'. Ad. st.	Cornwall, summer (*Vingoe*).	Purchased.
e'. Ad.; *f'*. Juv. sk.	Galicia, N.W. Spain, winter.	Dr. V. Lopez-Seoane [P.].
g'. ♂ ad. sk.	Havre, Dec. (*V. Pluche*).	Seebohm Coll.
h'. ♂ imm. sk.	Havre, Jan. (*V. Pluche*).	H. Saunders Coll.
i'. ♂ juv. sk.	Havre, May 11th (*V. Pluche*).	E. Hargitt Coll.
k'. Juv. sk.	Holland, autumn.	H. Saunders Coll.
l'. ♀ ad. sk.	Holland, autumn.	Seebohm Coll.
m'–o'. ♂ ad. et imm. sk.	Heligoland, Nov. (*Gätke*).	H. Saunders Coll.
p'. Albino sk.	Iceland, Sept. 29, 1877 (*Müller*).	H. Saunders Coll.
q'. Ad. sk.	Tangier, Morocco, Nov. (*G. Olcese*).	H. Saunders Coll.
r'. ♂ ad.; *s'*. Imm. sk.	Algiers, Feb. 20 (*G. E. S.*).	Shelley Coll.
t', *u'*. Ad. sk.	Greenland.	Hume Coll.
v'. Juv. sk.	Greenland, August (*Voy. 'Erik'*).	H. Saunders Coll.
w'. ♂ ad. sk.	Lichtenfels, S.W. Greenland, Aug.	H. Saunders Coll.
x'. Ad. sk.	Whalefish I., Davis Straits (*Dr. Robertson*).	The Admiralty [P.].
y'. Ad. sk.	Savage Is., Hudson Bay, July 1886 (*Admiral A. H. Markham*).	Col. H. W. Feilden [P.].
z'. Vix ad. sk.	Labrador (*Voy. 'Harmony'*).	H. Saunders Coll.
a''. Pull. sk.	Bird Rock, Gulf of St. Lawrence, July (*C. J. Maynard*).	Salvin-Godman Coll.
b''–e''. Ad. et juv. st.	Kotzebue Sound, North Alaska.	Capt. Kellett, R.N. [P.].
f''. ♀ ad. sk.	Stewart Id., Alaska, June (*E. W. Nelson*).	Salvin-Godman Coll.
g''–l''. ♂ ♀ ad. et juv. sk.	St. Michael's, Alaska, July–Sept. (*E. W. N.*).	Salvin-Godman Coll.
m''. ♂ juv. sk.	Lower Yukon River, Alaska, Sept. (*E. W. N.*).	Salvin-Godman Coll.
n'', *o''*. Vix ad. et imm. sk.	Kadiak I., Alaska (*W. J. Fisher*).	Salvin-Godman Coll.
p'', *q''*. Juv. sk.	Alaska (*Henshaw Coll.*).	Salvin-Godman Coll.
r''. ♀ ad. sk.	Aleutian Is. (*Vosnessensky*).	Seebohm Coll.

s''–u''. ♂ ♀ ad. sk.	St. George Id., Prybiloff Group (*H. W. Elliott*).	Salvin-Godman Coll.
v''. ♂ ad. sk.	St. Paul's Id., Prybiloff Group, Sept. (*H. W. E.*).	H. Saunders Coll.
w''. ♂ ad. sk.	St. Paul's Id., Prybiloff Group, Aug. (*H. W. E.*).	Salvin-Godman Coll.
x''. Juv. sk.	Walrus Id., Prybiloff Group (*G. R. Adams*).	Salvin-Godman Coll.
y'', *z''*. ♀ ad. sk.	Kuril Islands (*Snow*).	Seebohm Coll.
*a*³. Ad. sk.	Kuril Islands, summer (*Snow*).	H. Saunders Coll.
*b*³. Ad. sk.	Kuril Islands, summer (*Snow*).	Capt. Blakiston [P.].
*c*³. Skeleton.	England (died in Zool. Gard.).	Zoological Society [P.].
*d*³. Skeleton.	Helsingfors.	Dr. A. Günther [P.].
*e*³, *f*³. Skeletons.	Spitsbergen, June 1894.	Col. H. W. Feilden [P.].
*g*³. Sternum.	England.	John Ray, Esq. [P.].
*h*³. Sternum.	Europe.	Purchased.
*i*³. Skeleton.	(Imperfect.)	Salvin-Godman Coll.

2. Rissa brevirostris.

Larus brachyrhynchus (*nec Richardson*, 1831), *Gould, P. Z. S.* 1843, p. 106; *id. Voy.* '*Sulphur*,' p. 50, pl. 34 (1844).

Rissa nivea (*nec* L. niveus, *Pall.*), *Gray, List B. Brit. Mus.*, Anseres, p. 174 (1844: N.W. America); *id. Gen. B.* iii. p. 655 (1846); *Reichenb. Novit. Natat.* tav. eclxix. fig. 2254 (1850); *Bp. C. R.* xlii. p. 771 (1856); *Baird, Cass., & Lawr., B. N. Amer.* p. 855 (1858); *D. G. Elliot, New & Unfig. B. N. Amer.* ii. pl. 54 (1869);

Larus brevirostris, *Bruch, J. f. O.* 1853, p. 103; *id. op. cit.* 1855, p. 285 (critical); *Coues, Key N. Amer. B.* p. 315 (1872); *id. in H. W. Elliott's Rep. Prybiloff Is., Birds*, no. 553 (1873); *H. W. Elliott, Monog. Seal Is. Alaska*, p. 133 (1882).

Larus (Rissa) brevirostris, *Coues, B. N.-West*, p. 646 (1874).

Larus citrirostris, *Bruch, J. f. O.* 1855, p. 284 (Kamtschatka).

Rissa brachyrhyncha, *Bp. Consp. Av.* ii. p. 226 (1857); *Coues, Pr. Philad. Acad.* 1862, p. 306; *Gray, Hand-l. B.* iii. p. 117, no. 11018 (1871).

Larus warnecki, *Coinde, Rev. et Mag. Zool.* 1860, p. 401 (Aleutian Islands).

Rissa brevirostris, *Baird, Cass., & Lawr. B. N. Amer.* p. 855 (1858); *Dall & Bann. Tr. Chic. Ac.* i. p. 305 (1869: Alaska); *Saunders, P. Z. S.* 1878, p. 164 (revision); *id. Journ. Linn. Soc.* xiv. p. 394 (1878: distribution); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 51 (1881); *Coues, Check-l. N. Amer. B.* p. 122 (1882); *Nelson, Cruise* '*Corwin*,' p. 105 (1883: Bering Sea; *cf. Stejn. Auk*, 1884, p. 358); *Coues, Key N. Amer. B.* 2nd ed. p. 748 (1884); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 207 (1884); *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 82 (1885: Commander Is.); *Turner, Auk*, 1885, p. 158 (Alaska); *A. O. U. Check-l. N. Amer. B.* p. 87 (1886); *Ridgw. Man. N. Amer. B.* p. 25 (1887); *Allen, Auk*, 1893, p. 123 (distribution); *Taczan. Mém. Acad. St. Pétersb.* xxxix. p. 1053 (1893: E. Siberia).

Adult in breeding-plumage. Similar to the preceding species, but darker slate-grey on the mantle, as well as on the upper portions of

the primaries, the outer webs being darker, as are the margins of the inner webs up to the 4th; the black spot is usually present on the outer web of the 6th quill, but absent in one example: under wing grey, but paler than the mantle: bill short, culmen sharply decurved, lemon-yellow with a greenish tinge; tarsi and toes vermilion, fading to yellow in preserved specimens. Total length 15 inches, culmen 1·4, wing 11·75, tail 5·5, tarsus 1·2, middle toe with claw 1·8: hind-toe sometimes with and sometimes without a nail, presenting precisely the same amount of variation in development as there is in *R. tridactyla* *.

Adult in autumn. Similar, with dark hair-streaks before and below the eye, dark auricular patches, and a slight greyish half-collar below the nape.

Immature. Like the above, but with more dark colour along the outer webs of the second and third primaries.

Young. Collar deeper and blacker; feathers of the mantle tipped with greyish white, the three outer primaries black on both sides of their shafts: bill and tarsi brown; otherwise similar.

It will be observed that the young of this species differs from that of *R. tridactyla* in having no black band on the wing nor on the tail.

Hab. Lower part of Bering Sea, from the Kamschatkan side (Commander Islands) to the Prybiloff and Aleutian Islands.

a. Ad. st.	Aleutian Islands.	Purchased.
b. Juv. sk.	Walrus I., Prybiloff group, Aleutians (*G. R. Adams*).	H. Saunders Coll.
c–e. Ad. sk.	St. George I., Prybiloff group, Aleutians (*H. W. Elliott*).	H. Saunders Coll.
f–k. ♂ ♀ ad. sk.	St. George I., Prybiloff group, Aleutians (*H. W. Elliott*).	Salvin-Godman Coll.
l. Ad. sk.	"North-west coast of America" (? type of *L. brachyrhynchus*).	J. Gould, Esq. [P.].
m. ♂ ad. sk.	Bering Sea (*Snow*).	Seebohm Coll.

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* It is remarkable that this form of *R. brevirostris*, with a *thoroughly developed*, though minute nail, should not have been considered as worthy of specific distinction as *R. kotzebui* or *pollicaris*!

Family II. STERCORARIIDÆ.

Key to the Genera.

a. Size larger, form robust; depth of the bill at the exposed base nearly equal to the length of the cere; tarsus rather shorter than the middle toe with its claw; tail short, the central pair of rectrices projecting about 0·5 inch . . . 1. MEGALESTRIS, p. 314.

b. Size smaller, form more slender; depth of the bill at the exposed base decidedly less than the length of the cere; tarsus distinctly shorter than the middle toe with its claw; central pair of rectrices projecting 3 inches or more in adults. . 2. STERCORARIUS, p. 322.

1. MEGALESTRIS.

Catharacta *, *Brünn. Orn. Bor.* p. 32 (1764) ..... M. catarrhactes.
Lestris, *Illiger, Prodr.* p. 272 (1811: part.).
Cataractes *, *Fleming, Phil. Zool.* p. 263 (1822) .... M. catarrhactes.
Stercorarius, *Vieill. N. Dict. d'Hist. Nat.* xxiii. p. 154 (1819) *et auct.* (partim).
Catarracta *, *Bp. Naum.* 1854, p. 210 ..... M. antarctica.
Megalestris, *Bp. Cat. Parzudaki*, p. 11 (1856) .... M. catarrhactes.
Buphagus, *Coues, Pr. Philad. Acad.* 1863, p. 125, *ex Moehring* (1752) ..... M. catarrhactes.

Range. North and South Atlantic, southern portion of the Indian Ocean, Antarctic regions, and seas round New Zealand.

Key to the Species.

a. Bill longer in proportion to depth, terminal edge of cere markedly concave; under surface of body tawny or rich rufous; back streaked and mottled with rufous.

a'. Under surface tawny; under wing-coverts blackish tinged with rufous ..... *catarrhactes*, p. 315.

b'. Under surface and under wing-coverts rich rufous; back boldly spotted with chestnut. *chilensis*, p. 318.

b. Bill shorter in proportion to depth; terminal edge of cere less concave and more abrupt; under surface of body sooty brown to clay-brown.

c'. Darker, upper and under surfaces sooty brown; back little striated ..... *antarctica*, p. 319.

d'. Paler: head, neck, and under surface clay-brown with a rich straw-yellow tint on the upper neck ..... *maccormicki*, p. 321.

* Previously applied to a subgenus of Uriinæ.

1. Megalestris catarrhactes.

Catharacta skua, *Brünn. Orn. Bor.* p. 33 (1764: Færoes and Iceland).
Le Goiland brun, *Briss. Orn.* vi. p. 165 (1760).
Larus catarrhactes *, *Linn. Syst. Nat.* i. p. 226 (1766), *ex Brünn.*; *Mohr, Island. Naturh.* p. 43 (1786); *Gm. S. N.* i. p. 603 (1788); *Lath. Ind. Orn.* p. 818 (1790); *Bonn. Enc. Méth.* i. p. 85 (1790);
The Brown and Ferruginous Gull, *Pennant, Brit. Zool.* p. 140, pl. L 6 (1766).
Le Goéland brun, *Buff. Hist. Nat. Ois.* viii. p. 408 (1783, *ex Briss.*).
Skua Gull, *Lath. Gen. Syn.* iii. pt. 2, p. 385 (1785); *Bewick, Brit. B.* ii. p. 212 (1821).
The Skua, *Pennant. Brit. Zool.* 2nd ed. p. 417 (1788).
Cataracta skua, *Retz. F. Suec.* p. 161 (1800); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *id. Cat. Ucc. Eur.* p. 79 (1842); *G. R. Gray, List Genera B.* p. 78 (1840); *Reichenb. Av. Syst. Nat., Longip.* pp. iv & v (1852); *Brehm, Naum.* 1855, p. 293.
Catarracta fusca, *Leach, S. Cat. M. & B. Brit. Mus.* p. 40 (1816); *id. Thoms. Ann. of Philos.* xiii. p. 61 (1819: Færoe Is.).
Lestris catarrhactes, *Illiger, Prodr.* p. 273 (1811); *Temm. Man. d'Orn.* p. 511 (1815); *id. op. cit.* 2nd ed. p. 793 (1820); *Meyer, Taschenb. Zusätze,* p. 207 (1822); *Faber, Prodr. isländ. Orn.* p. 102 (1822); *Veitch, Mem. Wern. Soc.* iv. p. 246 (1822); *Boie, Isis,* 1822, p. 562; *Brehm, Lehrb.* pp. 739, 991 (1824); *Bp. Ann. Lyc. N.Y.* ii. p. 364 (1828: synopsis); *Werner, Atlas, Palmipèdes,* pl. 32 (1828); *Kaup, Natürl. Syst.* pp. 63, 64, 195 (1829); *Brehm, Isis,* 1830, p. 992; *Graba, Reise n. Färö,* p. 186 (1830); *Lesson, Traité,* p. 616 (1831); *Brehm, Vög. Deutschl.* p. 715 (1831); *Nuttall, Man. Orn.* ii. p. 313 (1834: Newfoundland); *Jenyns, Man. Brit. Vertebr.* p. 280 (1835); *Eyton, Cat. Brit. B.* p. 51 (1836); *Gould, B. Eur.* v. pl. 439 (1837); *Temm. Man. d'Orn.* éd. 2, pte. 4, p. 494 (1840); *Naum. Vög. Deutschl.* x. p. 470, taf. 270 (1840); *Schinz, Europ. Faun.* p. 387 (1840); *Keys. u. Blas. Wirb. Eur.* p. xciv & p. 239 (1840); *Schl. Rev. Crit.* p. cxxxiv (1844); *Yarr. Brit. B.* ed. 2, iii. p. 602 (1845); *Hewits. Eggs Brit. B.* ii. p. 451, pl. cxxix (1846); *Wolley, Jard. Contr. Orn.* p. 113 (1850: Færoes); *Thomps. B. Irel.* iii. p. 390 (1851); *Macgill. Brit. B.* v. p. 479 (1852); *Kjærb. Danm. Fugle,* p. 344, tab. xliii. (1852); *Hewits. Eggs Brit. B.* 3rd ed. ii. p. 505, pl. cxlii. (1856); *Brehm, Vogelf.* p. 335 (1855); *Meyer, Brit. B.* vii. p. 166, pl. 312 (1857); *Schl. Vog. Nederl.* p. 587, pl. 334 (1858); *id. Dier. Nederl. Vogels,* p. 231, pl. 33. figs. 9 & 9 *a* (1861); *Borggr. Vogelf. Norddeutsch.* p. 141 (1869); *Droste, Vogelw. Borkum,* p. 358 (1869); *R. Gray, B. West Scotl.* p. 493 (1871); *Saunders, Ibis,* 1871, p. 400 (Strs. Gibr.); *Harting, Handb. Brit. B.* p. 78 (1872); *Collett, Forh. Selsk. Christ.* 1873, p. 298 (N. Norway); *Goeldin, J.f.O.* 1879, p. 383 (Schaffhausen [?]); *Rodd, B. Cornw.* p. 173 (1880); *Homeyer, Ornis,* 1885, p. 80 (Germany); *Lütke, t. c.* p. 145; *Torre & Tschusi, t. c.* p. 500 (Trieste); *Grönd. Ornis,* 1886, p. 370 (Iceland); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 26 (1886); *Reiseuth. Wasservög. Mitteleurop.* p. 129 (1889); *Barrington, Zool.* 1890, p. 297 (Foula); *Gätke, Vogelw. Helgol.* p. 588 (1891); *id. B. Heligol.* (transl.) p. 565 (1895).
Lestris skua, *Boie, Wiedemann's Zool. Mag.* 1819, p. 133; *Brehm,*

* In the original *catarractes*, but where the same generic term is used it has been considered expedient to unite under one head the *specific* names which are variously and inconsistently written *catharactes, cataractes, catharractes.*

Isis, 1830, p. 992; *id. Vög. Deutschl.* p. 717 (1831); *id. Vogelf.* p. 336 (1855).

Stercorarius catarrhactes, *Vieillot, N. Dict. H. Nat.* xxxii. p. 154 (1819); *id. Faune Franç., Ois.* p. 385 (1828?); *Selys-Longch. Faun. Belg.* p. 155 (1842); *Gray, List B. Brit. Mus.*, Anseres, p. 168 (1844); *id. Gen. B.* iii. p. 653 (1846); *Degl. Orn. Eur.* ii. p. 289 (1849); *Lawr. Ann. Lyc. N.Y.* vi. p. 7 (1853: Monterey, Cala. [?]); *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 206 (1857); *Baird, Cass., & Lawr. B. N. Amer.* p. 838 (1858); *Reinh. Ibis*, 1861, p. 16 (S. Greenland, twice); *B. Ross, Nat. Hist. Rev.* 1862, p. 289 (Gt. Slave Lake [?]); *Newton in Baring-Gould's Iceland*, p. 418 (1863); *Gray, Cat. Brit. B.* p. 227 (1863); *Muller, Vidensk. Meddell.* 1862, p. 63 (1863: Færoes); *Degl. & Gerbe, Orn. Eur.* ii. p. 392 (1867); *Elliot, New & Unfig. B. N. Amer.* ii. pl. 55 (1869); *Fritsch, Vög. Eur.* p. 481, pl. 58. fig. 7 (1870); *Gray, Hand-l. B.* iii. p. 110, no. 10942 (1871); *Feilden, Zool.* s. s. p. 3290 (1872: Færoes); *Gould, B. Gt. Brit.* v. pl. 78 (1873); *Newton, Arctic Man.* p. 107 (1875); *Dresser, B. Eur.* viii. p. 457, pl. 609 (1875); *Irby, Orn. Strs. Gibr.* p. 216 (1875); *Saunders, P. Z. S.* 1876, p. 319 (revision); *Collett, N. Mag. Naturv.* 1877, p. 206 (N. Norway); *Saunders, Journ. Linn. Soc.* xiv. p. 392 (1878: distribution); *Brewer, Bull. Nutt. Orn. Club*, 1878, p. 188 (Mass.); *Clarke, B. Yorks.* p. 84 (1881); *B. O. U. List Brit. B.* p. 194 (1883); *Saunders, Ibis*, 1884, p. 391 (S.W. France); *id. 4th ed. Yarr. Brit. B.* iii. p. 662 (1884); *Mitchell, B. Lancas.* p. 216 (1885); *Seebohm, Brit. B.* iii. p. 346 (1885); *H-Br. & Buckl. Faun. Sutherl. &c.* p. 235 (1887); *R. Gray, 'Eclipse,' Zool.* 1887, p. 51 & p. 99 (Greenland Seas, 3 in four seasons); *Taczan. Ornis*, 1888, p. 508 (Poland, once); *Saunders, Man. Brit. B.* p. 671 (1889); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 64 (1889); *Stevenson & Southw. B. Norfolk*, iii. p. 346 (1890); *Buckl. & H-Br. Faun. Orkney Is.* p. 237 (1891); *iid. F. Argyll &c.* p. 194 (1892); *Macphers. Faun. Lakeland*, p. 438 (1892); *D'Urban & Math. B. Devon*, p. 391 (1892); *A. Dubois, Vertebr. Belg., Ois.* ii. p. 611, pl. 300 (1894); *Mathew, B. Pembrokesh.* p. 107 (1894); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 302 (1895).

Cataractes skua, *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 215 (1826); *Macgill. Man. Brit. Orn.* ii. p. 255 (1842); *Bruch, J. f. O.* 1853, p. 108.

Cataractes vulgaris, *Fleming, Brit. An.* p. 137 (1828); *Selby, Ill. Brit. Orn.* ii. pl. c (1832); *id. Brit. B.* ii. p. 514 (1833).

Stercorarius pomarinus, *Vieill. Gal. Ois.* ii. p. 220, pl. 288 (1834).

The Common Skua, *Yarr. Brit. B.* iii. p. 481 (1843).

Catarracta catarractes, *Licht. Nomencl. Av.* p. 99 (1854: North Sea).

Stercorarius skua, *Bp. Naum.* 1854, p. 210; *Coues, Check-list N. Amer. B.* no. 539 (1873); *id. op. cit.* ed. 1882, p. 119; *Collins, Auk*, 1884, p. 238 (New Engl. coast); *Hartert, Katal. Vogelsamml. Senckenb.* p. 243 (1891).

Cataracta minor, *Brehm, Naum.* 1855, p. 293.

Megalestris catarrhactes, *Bp. Cat. Parzudaki*, p. 11 (1856); *Gigl.* 1° *Resoc. Av. Ital.* p. 648 (1889: Rovigo, juv.).

Lestris fusca, *C. F. Dubois, Pl. Col. Ois. Belg.* iii. p. 238, cum tab. (1860).

Buphagus skua, *Coues, Pr. Philad. Acad.* 1863, p. 125; *id. B. N.-West*, p. 604 (1874); *Kumlien, Bull. U.S. Nat. Mus.* xv. p. 94 (1879).

Stercorarius fuscus, *A. Dubois, Consp. Av. Eur.* p. 33 (1871); *id. Bull. Mus. Belg.* iv. p. 22 (1885).

Stercorarius (Buphagus) skua, *Coues, Key N. Amer. B.* p. 309 (1872).
Megalestris skua, *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 328 (1884); *Goss, Auk*, 1884, p. 395 (Mass.); *Turner, Pr. U.S. Nat. Mus.* viii. p. 252 (1885: Labrador); *A. O. U. Check-l. N. Amer. B.* p. 85 (1886); *Dutcher, Auk*, 1886, p. 432; *id. op. cit.* 1887, p. 158 (Nantucket); *Ridgw. Man. N. Amer. B.* p. 21 (1887); *Hagerup, B. Greenl.* p. 45 (1891).

Adult. Head and nape umber-brown; neck rather paler, the acuminate feathers streaked with yellowish brown, ruddier at the junction with the back, which is more or less streaked with rufous; wing-surface darker brown; primaries chiefly umber, the exposed basal portions of the inner webs white, forming a band which is very conspicuous when the bird is flying; quill-shafts chiefly white; tail-coverts brown, streaked with dull rufous; rectrices umber; under surface up to the throat pale chestnut-brown; under wing-coverts dark brown, with a little rufous at times: bill black, the cere with a greyish tinge; iris dark brown; tarsi and toes black. Total length 21 inches, culmen 2·4, wing 15·5 to 16, tail 6·5, tarsus 2·75, middle toe with claw 3.

The sexes are alike in plumage: the female is, perhaps, a trifle the larger, but trustworthy material is scarce.

Beyond a certain freshness in the new feathers, there is no marked seasonal change, and the moult appears to be very gradual, the plumage of the neck and shoulders having generally a weather-worn appearance, as is also the case with many Raptores. Mr. G. T. Fox, who kept a bird alive for ten years, says that it showed no change with age; but one which Dr. Neil knew to be in its twenty-fourth year, became paler, as might have been expected. Melanotic varieties are occasionally met with, but the blackish tint is by no means intense.

Young. Similar to the adult, but with less tendency to acumination and striation in the feathers of the neck, and with somewhat rufous margins to the feathers of the mantle.

Nestling. Buffish grey; ruddier on the upper surface.

Range. Iceland, the Færoes, and the Shetland Islands (breeding); South Greenland and Norway (sparingly); in winter southward along the Atlantic sea-board to the Straits of Gibraltar or a little further, and occasionally on the inland waters of the Continent. On the American side, Hudson Strait (possibly breeding), and southward to the fishing-grounds off the coast of the New England States. No confirmation of reported occurrences in the Fur Countries or on Pacific side.

a. Juv. sk.	Devonshire.	Col. Montagu [C.].
b. Pull. sk.	Shetland.	Purchased.
c, d. ♂ ♀ ad.; *e.* Pull. sk.	Færoes, May, June, and July 8 (*H. C. Müller*).	H. Saunders Coll.
f. Imm. sk.	Færoes (melanic), Aug. (*H. C. M.*).	H. Saunders Coll.
g. ♀ ad. sk.	Færoes, Aug. 17 (*H. C. M.*).	Col. H. W. Feilden [P.].
h. ♂ ad. sk.	Færoes, Aug. 28 (*H. C. M.*).	Hume Coll.
i–n. ♂ ♀ ad. sk.	Færoes, July (*H. C. M.*).	E. Hargitt Coll.

2. Megalestris chilensis.

Stercorarius antarcticus, *Gay, Hist. Chile, Zool.* i. p. 481 (1847).
Catarracta catarractes, *Licht. Nomencl. Av.* p. 99 (1854: Chile).
Lestris antarcticus, var. *b.* chilensis, *Bp. Consp. Av.* ii. p. 207 (1857) (*Mus. Berol.*, ex Am. Merid.* "Rostro vix breviore quam in Europæo, potius graciliore quam robustiore").
Lestris antarctica, *Scl. & Salv. Ibis*, 1869, p. 284 (Sta. Magdalena, Magellan Strs.).
Stercorarius chilensis, *Saunders, P. Z. S.* 1876, p. 323, pl. xxiv. (revision Stercorariinæ); *id. op. cit.* 1877, p. 800 (Magellan Strs.); *id. Journ. Linn. Soc.* xiv. p. 393 (1878: distribution); *id. Voy.* '*Challenger*,' ii. (*Birds*) p. 140 (1880: Magellan Strs.); *Sharpe, P. Z. S.* 1881, p. 17 (Magellan Strs., 'Alert'); *Saunders, op. cit.* 1882, p. 527 (Callao Bay); *Milne-Edw. Faune des Régions australes*, ii. chap. iv. p. 21, carte no. 1 (1882); *Taczan. Orn. Pérou*, iii. p. 458; *J. R. H. MacFarl. Ibis*, 1887, p. 206 (Callao Bay); *Oustalet, Miss. Sc. Cap Horn*, vi. (*Ois.*) p. 172 (1891); *Berlepsch & Stolzm. P. Z. S.* 1892, p. 400 (Peru).

Adult in fresh plumage. Similar to the preceding species, but much brighter in coloration. Forehead, crown, and occiput dark brown; hind neck brown, with narrow whitish streaks, and mottled with chestnut; feathers of the mantle brown, with bright chestnut central streaks; upper tail-coverts chiefly chestnut, with brown mottlings; rectrices dark brown; wings dark brown, with white visible at the bases of the four outer pairs of quills, and more conspicuous on the underside; chin, throat, under neck, breast, and abdomen warm chestnut; under wing, axillaries, and under tail-coverts chiefly chestnut, mottled with brown: bill reddish black; tarsi black, often mottled with yellowish; toes black. Total length 21 inches, culmen 2·3, wing 15·5, tail 6·5, tarsus 2·75, middle toe with claw 2·8.

The sexes appear to be alike in size, as well as in plumage.

In less mature birds the chestnut colour is neither so pronounced nor so extensive, but is always a strong characteristic of the species. Just before the moult, however, the rufous colour becomes dull and faded.

Immature. Like the above, but with less ruddy colour on the mantle.

Young. Similar, but the feathers of the mantle are merely edged with rufous and have no chestnut central streaks: "bill slate-colour; iris black; tarsi and toes slate, with a few lavender streaks" (*S. F. Rowland*).

Hab. Coasts of South America, from Rio de Janeiro down to the Straits of Magellan and up the Pacific side to Callao, Peru. Not known to occur in the Falkland Islands, where the representative species is *M. antarctica*; but I think it possible that in the region of that group and Eastern Patagonia a fusion may sometimes take place.

* Type examined.

a. ♂ imm. sk.	Rio de Janeiro, Aug. (*H. M. Harrison, R.N.*).	H. Saunders Coll.
b. ♀ ad. sk.	Santa Catharina, Brazil, Aug. (*H. M. H.*).	H. Saunders Coll.
c. ♂ ad. sk.	Elizabeth Island, Straits of Magellan.	H.M.S. 'Challenger' Exped.
d. ♂ ad. sk.	Straits of Magellan (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
e. ♀ ad. sk.	Talcahuano, S. Chili, Sept. (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.
f. Juv. sk.	Iquique (*S. F. Rowland*).	H. Saunders Coll.
g–k. Ad. et imm. sk.	Mejillones Bay, 23° 5′ S., Dec.–March (*Dennison*).	H. Saunders Coll.
l. Imm. sk.	Callao Bay, Peru (*Admi. A. H. Markham*).	H. Saunders Coll.

3. Megalestris antarctica.

Port Egmont Hen, *Hawksw. Voy.* ii. p. 283 (1769); *Cook's Voy.* i. p. 43 & p. 272 (1777: so-called because the species was common at Port Egmont, Falkland Is.).

Larus catarrhactes, *Carmichael, Tr. Linn. Soc.* xii. pt. 2, p. 497 (1818: Tristan da Cunha); *Traill, Mem. Wern. Soc.* iv. p. 516 (1823: South Shetland Is.); *Forster, Descr. Anim.* p. 210, p. 312, p. 313 (1844).

Lestris catarrhactes *, *Quoy & Gaimard, Voy. 'Uranie,'* p. 137, *Atlas*, pl. 38 (1824: Falkland Is.); *Gould, B. of Austr.* vii. pl. 21 (1848); *Macgill., Jard. Contr. Orn.* p. 96 (1850); *Reichenb. Vög. Neuholl.* p. 345 (1850); *Hutton, Ibis*, 1865, p. 277 (Prince Edward I. & Kerguelen); *id. op. cit.* 1867, p. 185; *Layard, Ibis*, 1867, p. 459 (Crozette I.); *Finsch, J. f. O.* 1870, p. 360; *Hutton, Cat. N. Zeal. B.* p. 39 (1871); *Finsch, J. f. O.* 1872, p. 241 (N. Zealand); *Hutton, Ibis*, 1872, p. 248 (Chatham Is.); *Buller, Man. New Zeal. B.* p. 75 (1882).

Lestris antarctica †, *Lesson, Traité*, p. 616 (1831); *Gray in Dieffenb. Trav. N. Zeal.* ii. App. p. 200 (1843); *id. Voy. Ereb. & Terr., Birds*, p. 18 (1846); *Scl. P. Z. S.* 1860, p. 390; *Abbott, Ibis*, 1861, p. 165 (Falkland Is.); *Scl. & Salv. P. Z. S.* 1871, p. 579 (part.); *id. Nomencl. Av. Neotrop.* p. 148 (1873; Falkland Is.); *Cab. & Reichen. J. f. O.* 1876, p. 328; *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 27 note (1886).

Stercorarius antarcticus, *Gray, List B. Brit. Mus.*, Anseres, p. 167 (1844); *id. Gen. B.* iii. p. 653 (1846); *Bp. Consp. Av.* ii. p. 207 (1857); *Hartl. Faun. Madag.* p. 85 (1861: Bernier's examp.); *Pelz. Reis. Novara, Vög.* p. 150 (1865: St. Paul's I.); *Giglioli, Faun. Vertebr. Oceano*, p. 61 (1870); *Gray, Hand-l. B.* iii. p. 111, no. 10943 (1871); *Buller, B. New Zeal.* p. 267 (1873); *Saunders, P. Z. S.* 1876, p. 321 (revision); *id. op. cit.* 1877, p. 799 (Kerguelen, T. da Cunha, Falkland Is.); *Hartl. Orn. Madag.* p. 380 (1877); *Vélian, Arch. Zool. éxp. et gén.* vi. p. 52 (1877: St. Paul's I.); *id. t. c.* p. 96 (Amsterdam); *Saunders, Journ. Linn. Soc.* xiv. p. 393 (1878: distribution); *Ramsay, Pr. Linn. Soc. N. S. W.* 1878, p. 201; *Sharpe, Phil. Tr.* clxviii. (*Rep. Trans. Venus*), p. 109, pl. vii. figs. 1, 2 (1878: Kerguelen); *Saunders, t. c.* p. 163; *Legge, B. Ceylon*, pp. 1050–1051 note (1880: Colombo, doubtfully); *A. Milne-*

* The specific names *catarractes*, *catarrhactes*, &c. are united.

† The specific names *antarcticus* and *antarctica* are united.

Edw. Faun. Rég. australes, ch. iv. p. 21 (1882); *Saunders, Voy. 'Challenger,'* ii. (*Birds*) p. 139 (1882); *McCormick, Voy. Discov. Antarct.* i. p. 142, cum tab. (1884: Campbell I.); *Sharpe, ed. Layard's B. S. Afr.* p. 696 (1884); *Legge, Pr. R. Soc. Tasman.* 1886, p. 243 (1887); *Ramsay, Tab. List Austr. B.* p. 22, no. 687 (1888); *Buller, B. N. Zeal.* 2nd ed. ii. p. 63 (1888); *Oustalet, Miss. Sc. Cap Horn*, vi. (1891) p. 169; *H. O. Forbes, Ibis*, 1893, p. 530 (Chatham Is.); *Sclater, Ibis*, 1894, p. 495 & p. 497 (American Antarctica).

Cataracta antarctica, *Bp. Naum.* 1854, p. 210; *id. C. R.* xlii. p. 770 (1856).

Catarrhactes antarcticus, *Bruch, J. f. O.* 1853, p. 108.

Stercorarius antarcticus, *a.* madagascarensis, *Bp. Consp. Av.* ii. p. 207 (1857).

Megalestris antarctica, *Gould, P. Z. S.* 1859, p. 98 (Falkland Is.); *Payenstecher, Ber. Naturhist. Mus. zu Hamburg*, 1884, p. 24 (1885); *Neumayer, Deutsch. Exped.* Bd. ii. p. 259 (1890: South Georgian Is.); *Ridgw. Pr. U.S. Nat. Mus.* xii. p. 139 (St. Peter & St. Paul Is.).

Lestris fuscus, *Ellman, Zoologist*, 1861, p. 7472.

Buphagus antarcticus, *Coues, Pr. Philad. Acad.* 1863, p. 127; *id. B. N.-West*, p. 604 (1874); *Kidder & Coues, Contr. Nat. Hist. Kerguelen-Ld.* p. 9 (1875).

Stercorarius catarrhactes (*b*), *Schleg. Mus. P.-Bas*, Lari, p. 47 (1865); *Gould, Handb. B. Austr.* ii. p. 389 (1865); *Layard, B. S. Afr.* p. 366 (1867); *Sperling, Ibis*, 1868, p. 295 (Comoro Is.); *Schl. & Poll. Faun. Madag., Ois.* p. 145 (1868); *Sharpe, Zool. 'Erebus' & 'Terror,'* i. App. p. 32 (1875).

Buphagus skua antarcticus, *Coues in Bull. U.S. Nat. Mus.* no. 2, p. 9 (1875: Kerguelen I.).

Stercorarius catarrhactes, var. antarcticus, *Milne-Edw. & Grandidier, Hist. Nat. Madag., Ois.* p. 643 (1882).

? Stercorarius parasiticus, *Finsch, Ibis*, 1888, p. 309 (Snares I., New Zealand, "on the rocks, feeding on young Penguins").

Adult. Larger, as a rule, than either of the two preceding species, and of a dark brown on the upper parts, especially on the crown, and a slightly paler brown on the under surface; very few, if any, rufous markings on the feathers of the mantle, though these are often weather-worn and greyish at their tips; under wing-coverts dark sooty brown, with no signs of rufous: bill black, stout; tarsi black, often mottled with yellow; toes black. Total length of examples from the Southern Ocean 23 to 24 inches; culmen 2·5, and depth 1; wing 15·5 to 16·5 and even 17; tail 6·5 to 7, tarsus 3 to 3·25, middle toe with claw 3·35 to 3·5. Specimens from the Falkland Islands are smaller and have more pronouncedly yellowish acuminate feathers on the neck; average length 21 inches, culmen 2·2, wing 15, tail 6·5, tarsus 2·7, middle toe with claw 2·9.

Immature. Similar, but the crown less pronouncedly dark, and no yellow tinge on the acuminate feathers of the neck.

Young. Similar, with a very slight tinge of rufous on the under surface as well as at the extremities of the feathers of the mantle and wing-coverts.

Nestling. Buffish white, slightly darker on the upper surface.

Hab. Southern Ocean: from American Antarctica, the Falkland Islands, and South Georgian Islands, by Trista da Cunha, Prince

Edward, Marion, Crozet, Kerguelen, and Heard Islands to New Zealand and its islets, Australian waters, and up to Norfolk Island; also St. Paul and Amsterdam Islands and as far north as Madagascar and the Comoro Islands; perhaps Ceylon.

a, *b*. Ad. st. & sk.	Campbell Island (below New Zealand).	Lieut. A. Smith, R.N. [P.].
c. Ad. sk.	Campbell Island.	Antarctic Exped.
d. Ad. sk.	Campbell Island, Dec. 16, 1840.	Dr. R. McCormick, R.N. [P.].
e. Ad. sk.	New Zealand.	Sir Geo. Grey [P.].
f, *g*. Vix ad. et pull. sk.	Chatham Islands.	H. O. Forbes, Esq. [C.].
h. Imm. sk.	Norfolk Island.	F. M. Rayner, Esq. [P.].
i. ♀ imm. sk.	Lat. 36° 8′ S., long. 88° 55′ E.	Sir Geo. Grey [P.].
k. Ad. sk.	Between New Zealand and Cape of Good Hope, April 2, 1892.	R. B. Marston, Esq. [P.].
l. Vix ad. sk.	Royal Sound, Kerguelen Island.	Rev. A. E. Eaton [C.].
m–*o*. Ad. et vix ad. sk.	Christmas Harbour, Kerguelen Island, May and June 1840 (*Dr. R. M°Cormick*).	Antarctic Exped. & McCormick Bequest [P.].
p. Ad. sk.	Christmas Harbour, Jan. 1874.	H.M.S. 'Challenger' Exped.
q. Imm. st.	South African seas.	Sir Andrew Smith [P.].
r. Ad. sk.	Inacessible Island, off Tristan da Cunha, Oct. 16, 1873.	H.M.S. 'Challenger' Exped.
s. ♀ ad. sk.	Falkland Islands.	H.M.S. 'Challenger' Exped.
t. Ad. sk.	Falkland Islands, April 15 (*Falkland Is. Co.*).	Salvin-Godman Coll.
u. Vix ad. sk.	Falkland Islands (*Leconte*).	Salvin-Godman Coll.
v–*y*. ♂ ♀ ad.; *z*. Juv.; *a′*, *b′*. Pull. sk.	Falkland Islands (*Cameron*).	H. Saunders Coll.
c′. Skeleton.	Christmas Harbour, Kerguelen Island.	H.M.S. 'Challenger' Exped.

4. Megalestris maccormicki. (Plate I.)

"Lestris, apparently a new species," *R. McCormick*, *Voy. Discov. Antarctic*, i. p. 154 (1884: Possession I., Victoria Land, 71° 56′ S., 171° 15′ E.: Voy. 'Erebus' & 'Terror.')

Stercorarius antarcticus, *Saunders*, *P. Z. S.* 1876, p. 322 (edge of Antarctic pack-ice, *ut supra*); *id. Journ. Linn. Soc., Zool.* xiv. p. 393 (1878: distribution).

Stercorarius maccormicki, *Saunders*, *Bull. Brit. Orn. Club*, vol. iii. p. xii (Dec. 30th, 1893: Possession I., Victoria Land).

Adult. Much paler than *M. antarctica*: crown clove-brown; acuminate feathers of the nape and neck all round strongly marked with golden straw-colour, and the upper breast streaked with the

same, though in a less degree; the remaining under surface gradually darkening to coffee-brown on the abdomen: mantle, wings, and tail chiefly umber-brown, as in *M. antarctica*: bill blackish, short and stout; tarsi and toes black. Total length 21 inches, culmen 2·3, wing 15·5, tail 6·5, tarsus 2·6, middle toe with claw 2·7.

The sexes appear to be alike externally.

Hab. Victoria Land and the high Antarctic regions visited by the 'Erebus' and 'Terror,' 71°–76° S. lat. and 171°–178° E. long.

a. Ad. sk.	Possession Island, Victoria Land, Jan. 12, 1841 (*Dr. R. McCormick, R.N., H.M.S. 'Erebus'*).	Dr. R. McCormick [P.]. (Type of species.)
b. Ad. sk.	Pack Ice, Antarctic Sea, 76° S., 178° E., Feb. 18, 1841 (*Dr. R. McCormick*).	Dr. R. McCormick [P.].
c–*e*. ♂ ♀ ad. sk.	Pack Ice, Antarctic Sea (*Dr. R. McCormick*).	Antarctic Expedition [P.].

2. STERCORARIUS.

	Type.
Stercorarius (Le Stercoraire), *Brisson, Orn.* vi. pp. 149–150 (1760)	? S. crepidatus.
Lestris, *Illiger, Prodromus*, p. 272 (1811)	S. parasiticus &c.
Labbus, *Rafinesque, Analyse*, p. 72 (1815)	S. crepidatus.
Prædatrix, *Vieillot, Analyse*, p. 65 (1816)	S. crepidatus.
Oceanus, *Kaup, Syst. baier. Zool.* p. 381 (1816)	S. crepidatus.
Coprotheres, *Reichenb. Av. Syst. Nat.* tab. v. (1850), *and Nat. Syst. Vög., Longip.* p. v (1852).	S. pomatorhinus.

Range. From Arctic and Sub-Arctic regions (breeding) to South Africa and New Zealand in winter.

Key to the Species.

a. Larger, wing over 14 inches; central rectrices broad, rounded at the ends, projecting 4 inches in the adult, and twisted vertically	*pomatorhinus*, p. 322.
b. Smaller, wing under 14 inches; central rectrices pointed and tapering.	
a'. Larger; bill comparatively long; shafts of primaries chiefly white; central rectrices not projecting more than 3 inches	*crepidatus*, p. 327.
b'. Smaller; bill comparatively short; only the two outer primaries with white shafts; central rectrices projecting up to 9 inches	*parasiticus*, p. 334.

1. Stercorarius pomatorhinus.

Le Stercoraire rayé, *Brisson, Orn.* vi. p. 152, pl. xiii. fig. 2 (1760: jr.).

Larus keeask (partim), *Latham, Ind. Orn.* p. 818 (1790).

Larus crepidatus (partim), *Bonn. Enc. Méth.* i. p. 86 (1793).

Larus parasiticus (*nec Linn.*), *Wolf & Meyer, Naturg. Vög. Deutschl.* ii. Heft 21, p. 70, cum fig. (1805); *Meyer & Wolf, Tasch. d. Vög.* ii. p. 490, descrip. p. 492 (1810).

Catarracta parasita, var. camtschatica, *Pallas, Zoogr. Rosso-As.* p. 312 (1811).

Lestris pomarina*, *Temm. Man. d'Orn.* p. 514 (1815); *id. op. cit.* ed. 1820, p. 793; *Boie, Isis*, 1822, p. 562; *Faber, Prodr. isländ. Orn.* p. 104 (1822); *Meyer, Taschenb. Zusätze*, iii. p. 210 (1822); *Brehm, Lehrb.* p. 741 & p. 991 (1824); *Richardson, Parry's 2nd Voy.* Supp. p. 361 (1825: Melville Peninsula); *J. C. Ross, Parry's 3rd Voy.* App. p. 305 (1826: Whale I., south of Disco); *id. Parry's 4th Voy.* App. p. 196 (1828: 82° N. beyond Spitzbergen); *Bp. Ann. Lyc. N. Y.* ii. p. 364 (1828); *Kaup, Natürl. Syst.* p. 63, p. 64, p. 105 (1829); *Swains. & Richards. Faun. Bor.-Amer., Birds*, p. 429 (1831); *Lesson, Traité*, p. 616 (1831); *Savi, Orn. Tosc.* iii. p. 48 (1831); *Nuttall, Man. Orn.* ii. p. 314 (1834); *Audub. Orn. Biogr.* iii. p. 396 (1835); *Jenyns, Man. Brit. Vertebr.* p. 281 (1835); *Gould, B. Eur.* v. pl. 440 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Audub. Synop.* p. 332 (1839); *Temm. Man. d'Orn.* 2me éd. 4me pte. p. 495 (1840); *Schinz, Europ. Faun.* p. 388 (1840); *Naum. Vög. Deutschl.* x. p. 487, taf. 271 (1840); *Keys. u. Blas. Wirb. Eur.* p. xciv & p. 240 (1840); *Crespon, Orn. Gard*, p. 494 (1840); *Bp. Cat. Ucc. Eur.* p. 80 (1842); *Audub. B. N. Amer.* viii. p. 186, pl. 451 (1844); *Giraud, B. Long Isl.* p. 366 (1844); *Crespon, Faun. Mérid.* ii. p. 129 (1844); *Schl. Rev. Crit.* p. cxxxiv (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 606 (1845); *Thomps. B. Irel.* iii. p. 392 (1851); *Macgill. Brit. B.* v. p. 847 (1852); *Kjærb. Danm. Fugl.* p. 345, taf. xliii. (1852); *Middend. Reis. Sibir., Zool.* p. 240, xxiv. fig. 1 (egg) (1853); *Licht. Nomenel. Av.* p. 99 (1854); *Schleg. Vog. Nederl.* p. 588, pls. 335 & 336 (1854); *Brehm, Naum.* 1855, p. 294; *id. Vogelfang*, p. 336 (1855); *Bp. Consp. Av.* ii. pp. 207, 208 (1857); *Meyer, Brit. B.* vii. p. 171, pl. 313 (1857); *Jaub. et B.-Lapomm. Rich. Orn. Midi Fr.* p. 385 (1859); *Schl. Dier. Nederl. Vogels*, p. 232, pl. 33. figs. 5–7 (1861); *Müller, Vidensk. Meddel.* 1862, p. 64 (1863: Færoes); *Sundev. Sv. Fogl.* pl. 51. fig. 1 (1863); *Jerdon, B. India*, ii. pt. 2, p. 828 (1864: Moulmein); *Borggr. Vogelf. Norddeutschl.* p. 141 (1869); *Fritsch, Vög. Eur.* p. 478, taf. 58. figs. 5 & 6 (1870); *Saunders, Ibis*, 1871, p. 401 (S. Spain); *R. Gray, B. West Scotl.* p. 494 (1871); *Salvad. Faun. Ital., Ucc.* p. 296 (1872); *Palmén, Finlands Fogl.* p. 622 (1873); *Collett, Forh. Selsk. Christ.* 1873, p. 298 (N. Norway); *Eaton, Zool.* s. s. p. 3812 (1874: Spitsbergen, obtained); *Warren, Zool.* s. s. p. 4699 (1875: Killala Bay); *Finsch, Verh. z.-b. Ver. Wien*, 1879, p. 276 (Podarata Tundra, West Siberia); *Cocks, Zool.* 1884, p. 232 (Spitsbergen); *Homeyer, Ornis*, 1885, p. 80 (Germany); *Lütken, t. c.* p. 145; *Gröndal, op. cit.* 1886, p. 370 (Iceland); *Tschusi & D. Torre, op. cit.* 1887, p. 351 (Styria); *Schneider, t. c.* p. 551 (Upper Alsace: young on migr.); *Hartert, MT. orn. Ver. Wien*, 1887, p. 180 (East Prussia); *Riesenth. Wasservög. Mitteleurop.* p. 130 (1889); *Keller, Orn. Carinthiæ*, p. 299 (1890); *Jäckel & Blas. Vög. Bayerns*, p. 354 (1891); *Gätke, Vogelw. Helgol.* p. 589 (1891); *Litford, Col. Figs. Brit. B.* pt. xxi. (1892); *Gätke, B. Heligol.* p. 566 (1895); *Loomis, B. Cala. Acad.* v. p. 213 (1895: Monterey).

Lestris parasitica (part.), *Nilss. Orn. Suec.* p. 181 & p. 184 (1817); *Vigors, Voy. 'Blossom,' Birds*, p. 39 (1839: Bering Str.: "knobbed tail").

* Often written *pomarinus*, but *Lestris* being a feminine substantive, the adjectival name is placed in agreement in this case, to avoid subdivision.

Stercorarius pomarinus, *Vieill. N. Dict. d'Hist. Nat.* xxxii. p. 158 (1819); *id. Faune Franç., Ois.* p. 387, pl. 159. fig. 1 (1828?); *Ranzani, Elem. Zool.* iii. p. 55 (1826); *Selys-Longch. Faun. Belg.* p. 155 (1842); *Gray, Gen. B.* iii. p. 653 (1846); *Degl. Orn. Eur.* ii. p. 291 (1849); *Baird, Cass., & Lawr. B. N. Amer.* p. 838 (1858); *Coues, Proc. Philad. Acad.* 1863, p. 129; *Reinhardt, Ibis*, 1861, p. 16 (Greenland); *B. Ross, Nat. Hist. Rev.* 1862, p. 289 (Gt. Slave Lake, very rare); *Gray, Cat. Brit. B.* p. 227 (1863); *Wright, Ibis*, 1864, p. 151 (Malta); *Degl. et Gerbe, Orn. Eur.* ii. p. 394 (1867); *Doderl. Avif. Moden. e Sicil.* p. 231 (1869); *Gray, Hand-l. B.* iii. p. 110, no. 10941 (1871); *Gurney, Andersson's B. Damara Ld.* p. 357 (1872); *Irby, Orn. Strs. Gibr.* p. 216 (1875); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 332 (1884); *Seebohm, Brit. B.* iii. p. 349 (1885); *A. Dubois, Bull. Mus. Belg.* iv. p. 22 (1886); *Fischer & Pelz. MT. orn. Ver. Wien*, x. p. 210 (1886: Jan Mayen I.); *Turner, Contrib. N. H. Alaska*, p. 122 & p. 185 (1886); *A. O. U. Check-list N. Amer. B.* p. 85 (1886); *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 125; *Ridgw. Man. N. Amer. B.* p. 22 (1887); *Nelson, Rep. Nat. H. Alaska*, p. 46 (1887: Yukon mouth, abundant); *Baird, Auk*, 1887, p. 71; *Taczan. Ornis*, 1888, p. 508 (Poland, once); *Seebohm (Bunge), Ibis*, 1888, p. 349 (Gt. Liakoff Is.); *Dutcher, Auk*, 1889, p. 125; *Clark, op. cit.* 1890, p. 320; *Seebohm, B. Japan. Emp.* p. 289 (1890); *Palmer, Pr. U.S. Nat. Mus.* xiii. p. 253 (1890: Str. Belle Isle); *Clarke, Zool.* 1890, p. 48 (Jan Mayen I.); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 417 (1891: Arctic Amer.); *Hagerup, B. Greenl.* p. 45 (1891); *Berlepsch & Stolz. P. Z. S.* 1892, p. 400 (Peru); *Stone, Pr. Philad. Acad.* 1892, p. 146 (Disco); *Finn, Ibis*, 1893, p. 233 (Strs. Gibraltar); *Hartwig, J. f. O.* 1893, p. 3 & p. 12 (Madeira); *Taczan. Mém. Acad. Pétersb.* (7) xxxix. p. 1061 (1893: E. Siberia); *Ridgw. Pr. U.S. Nat. Mus.* xvi. p. 663 (1893: Kadiak, Alaska).

Cataractes pomarinus, *Steph. in Shaw's Zool.* xiii. pt. 1, p. 216 (1826); *Selby, Brit. B.* ii. p. 517, pl. ci. (1832); *Macgill. Man. Brit. Orn.* pt. ii. p. 257 (1842).

Lestris spaeriuros, *Brehm, Isis*, 1830, p. 993.

Lestris sphæriuros, *Brehm, Vög. Deutschl.* p. 718 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 336 (1855).

Lestris striatus, *Eyton, Cat. Brit. B.* p. 51 (1836).

Pomerine Skua, *Yarr. Brit. B.* iii. p. 485 (1843).

Coprotheres pomarinus, *Reich. Av. Syst. Nat.* tab. v. (caudæ) (1850); *id. Nat. Syst. Vög., Longip.* p. v (1852) (type of genus); *Bp. Naum.* 1854, p. 210; *id. C. R.* xlii. p. 770 (1856); *J. H. Blasius, J. f. O.* 1865, p. 384.

Catarracta pomarina, *Blyth, J. A. S. B.* xxviii. p. 416 (1859: Moulmein, imm.).

Lestris pomerinus, *A. Newton, P. Z. S.* 1861, p. 401, pl. xxxix. fig. 3 (egg).

Lestris pomarhinus, *Preyer, Reise n. Island*, p. 418 (1862).

Lestris pomatorhinus, *Sclater, Ibis*, 1862, p. 297; *Harting, Handb. Brit. B.* p. 78 (1872); *Heugl. Ibis*, 1872, p. 65 (Novaya Zemlya & Waigatz); *Sundev. Œfv. Akad. Stockh.* 1874, p. 22; *Blyth & Walden, B. Burm.* p. 163 (1875: Moulmein); *Giglioli, Ibis*, 1881, p. 220 (Italy); *Palmén, Vega-Exped. Vetensk.* Bd. v. p. 384 (1887: Tchuckchi Peninsula).

Stercorarius pomatorhinus, *A. Newton, in Baring-Gould's Iceland*, p. 418 (1863); *id. Ibis*, 1865, p. 509 (Spitsbergen, doubtfully);

Gillett, Ibis, 1870, p. 307 (Novaya Zemlya); *Coues, Key N. Amer. B.* p. 309 (1872); *Gould, B. Gt. Brit.* v. pl. 79 (1873); *Coues in Elliott's Prybiloff Group*, no. 540 (1873); *id. B. N.-W.* p. 607 (1874); *Eaton, Zool.* s. s. p. 3812 (1874: Spitzbergen); *A. Newton, Arctic Man.* p. 107 (1875); *Saunders, P. Z. S.* 1876, p. 324 (revision); *Seeb. & H-Brown, Ibis*, 1876, p. 455 (outside Golaievskai banks); *Collett, N. Mag. Naturv.* 1877, p. 207; *Saunders, Bull. Soc. Zool. Fr.* 1877, p. 205 (S. Spain); *id. P. Z. S.* 1877, p. 800 (Inosima, Japan, 'Challenger'); *Dresser, B. Eur.* viii. p. 463, pl. 610 (1877); *Saunders, Journ. Linn. Soc.* xiv. p. 392 (1878: distribution); *Kumlien, Bull. U.S. Nat. Mus.* xv. p. 94 (1879: Disco); *Dalgleish, Pr. Nat. H. Soc. Glasg.* 1881, p. 275; *Saunders, Voy. 'Challenger,' Birds*, p. 140 (1881: Japan); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Feilden in Markham's Polar Recon.* p. 334 (1881: Novaya Zemlya, breeding); *Coues, Check-list N. Amer. B.* p. 119 (1882); *Elliott, Seal Is. of Alaska*, p. 132 (1882); *Bean, Pr. U.S. Nat. Mus.* 1882, p. 168 (Pt. Belcher, Alaska); *Saunders, P. Z. S.* 1882, p. 527 (Callao Bay); *Seebohm (Henke), Ibis*, 1882, p. 386 (Kanin Penins., breeds); *B. O. U. List Brit. B.* p. 194 (1883); *Ridgw. Cat. Fish. Exhib.* p. 35 (1883); *Nelson, Cruise 'Corwin,'* p. 110 (1883); *Stearns, Pr. U.S. Nat. Mus.* vi. p. 121 (1883: Labrador); *Oates, B. Brit. Burm.* ii. p. 413 (1883: Moulmein); *Coues, Key N. Amer. B.* 2nd ed. p. 735 (1884); *Stejn. Auk*, 1884, p. 174 (nomencl.); *Seeb. Ibis*, 1884, p. 32 (Tokio Bay, Japan); *Saunders, Ibis*, 1884, p. 391 (S.W. France); *Saunders, 4th ed. Yarr. Brit. B.* iii. p. 668 (1884); *Sharpe, ed. Layard's B. S. Afr.* p. 695 (1884); *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 132 (1885: St. Petersburg); *Murdoch, Rep. Exped. Pt. Barrow*, p. 126 (1885); *Giglioli, Avif. Ital.* p. 435 (1886); *Taczan. Orn. Pérou*, iii. p. 458 (1886); *Feilden, Tr. Norwich Soc.* iv. p. 351 (1887: Hudson Str.); *Salvad. Ucc. Ital.* p. 290 (1887); *H-Br. & Buckl. Faun. Sutherl. &c.* p. 235 (1887); *J. R. H. MacFarl. Ibis*, 1887, p. 206 (Callao Bay); *Tait, t. c.* p. 396 (Portugal); *Booth, Rough Notes*, iii. (1887); *H-Br. & Buckl. Faun. Outer Hebr.* p. 151 (1888); *Saunders, Man. Brit. B.* p. 673 & p. 736 (1889); *Giglioli*, 1° *Resoc. Av. Ital.* p. 650 (1889); *id.* 2° *Resoc.* p. 661 (1890); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 64 (1889); *Stevenson & Southw. B. Norfolk*, iii. p. 348 (1890); *Buckl. & H-Br. Faun. Orkneys*, p. 237 (1891); *iid. F. Argyll & Inn. Hebr.* p. 194 (1892); *Hartert, Ibis*, 1892, p. 521 (East Prussia); *Collett, N. Mag. f. Naturv.* Bd. xxxv. p. 297 (1894); *Irby, Orn. Strs. Gibr.* 2nd ed. p. 302 (1895).

Stercorarius pomarhinus, *Malmgren, Œfv. Förh. Ak. Stockh.* 1864, p. 411 (1864: Spitsbergen).

Stercorarius catarractes, *Wright, Ibis*, 1864, p. 150 (Malta).

Stercorarius striatus (*ex Briss.*), *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 7 (1886).

Coprotheres pomatorhinus, *Heine & Reichenow, Nomencl. Mus. Hein.* p. 360 (1890).

Adult in breeding-plumage. Forehead, cheeks, and crown sooty black; acuminate feathers of the entire neck white, edged with warm straw-yellow; feathers of the lower neck blackish, often tipped with grey, while those of the upper breast are chiefly white, barred with black, which forms more or less of a dark collar; mantle, upper tail-coverts, and rectrices dark umber-brown; primaries similar, but whitish at their concealed bases, shafts chiefly

whitish; abdomen umber; breast dull white; flanks and under wing-coverts umber: bill horn-brown; tarsi and toes reddish black. Total length 21 inches, culmen 1·7, wing 14·25, tail about 5·25 (without the central rectrices, which sometimes project 4 inches), tarsus 2·1, middle toe with claw 2.

The sexes appear to be alike externally.

In less mature birds the dark pectoral band is more extensive, while the underparts, especially the flanks, are somewhat striated; the yellow on the neck is less pronounced.

Adult in winter. Similar, but for some years after the attainment of adult—though not mature—plumage there is a tendency, after the autumnal moult, to show striated feathers on the flanks, upper and under tail-coverts.

Immature. Like the above, but with less yellow on the neck; the underparts more barred, but the upper and under tail-coverts barred with black and white, and the under wing similarly mottled; central rectrices seldom projecting more than 2 in., and not twisted terminally.

Melanotic individuals—considered to be adults from the fact that they show more or less yellow on the neck—sometimes occur, but I do not think that any of these are really mature birds. One of these originally dark individuals was kept alive by the late Mr. Booth for some years, during which time its underparts became gradually white.

Birds of all ages occasionally exhibit spots of white on the carpal joints.

Young. Head and neck varying from clove-brown to sooty brown; feathers of the mantle dark brown, tipped with rufous in varying degrees; tail-coverts barred with black and rufous buff; under surface varying, from numerous bold striations of brown and rufous to an ashy brown with faint striations, and again to an almost uniform dull brown: bill brown with a greenish tinge; tarsus often blue or grey in patches; bases of the toes yellowish.

Nestling. Pale sooty brown, with a tinge of rufous.

Hab. Arctic regions north of 70°: chiefly on tundras during the breeding-season; in winter southward, as far as Cape York in Australia, Walvisch Bay in S. Africa, and Callao Bay in Peru. Mr. L. Kumlien's statement that this species nests "in large numbers on an inaccessible cliff" on Disco Island may be correct, but it is opposed to the experience of every other observer.

a. Juv. st.	Hurst Castle, Hants.	R. B. Sharpe, Esq. [P.].
b. ♀ juv. sk.	Near Beccles, Suffolk, Oct. (*W. M. Crowfoot*).	H. Saunders Coll.
c. ♀ juv. sk.	Yarmouth, Norfolk, Nov. (*J. E. Harting*).	H. Saunders Coll.
d. Ad.; *e, f.* Juv. sk.	Flamborough, Yorks (*J. H. Gurney*).	Hume Coll.
g. ♀ imm. sk.	Scarborough, Oct.	H. Saunders Coll.
h. Juv. sk.	North Britain.	Old Coll.

i. ♀ vix ad. sk.	Firth of Forth, Oct. (*Major R. G. Wardlaw Ramsay*).	Tweeddale Coll.
k. ♀ vix ad.; *l*, *m*. ♂ juv. sk. (one black).	Broadfoot, I. of Skye, Oct.	J. E. R. Oldfield, Esq. [P.].
n, *o*. Ad.; *p*, *q*. Juv. sk.	Orkneys, winter.	Purchased.
r–*t*. ♂ ♀ ad. sk.	Færoe Islands, May & Aug. (*H. C. Müller*).	H. Saunders Coll.
u, *v*. ♂ ♀ ad.; *w*. ♀ juv. sk.	Færoe Islands, May & Oct. 31 (*H. C. M.*).	E. Hargitt Coll.
x. ♂ juv. sk.	Heligoland, Nov. (*H. Gätke*).	Seebohm Coll.
y. ♀ ad. sk.	Archangel, June (*W. Schlüter*).	Hume Coll.
z. Pull. sk.	Podarata Tundra, N. W. Siberia, Aug. 5.	Dr. O. Finsch [C.].
a'–*d'*. Juv. sk.	Fantee, W. Africa, winter (*Gov. H. T. Ussher*).	G. E. Shelley & H. Saunders Colls.
e'. Imm. sk.	Damaraland, S. Africa (*C. Andersson*).	H. Saunders Coll.
f'. Imm. sk.	Somerset, Cape York, North Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
g'–*k'*. ♂ ♀ imm.	Callao Bay, Peru, Nov., Dec. (*Adml. A. H. Markham & Commr. J. R. H. MacFarlane*).	H. Saunders Coll.
l'. Ad. sk.	Inosima Japan, May.	H.M.S. 'Challenger' Exped.
m'–*o'*. Imm. sk.	Tokio Bay, Japan, March (*Snow*).	Seebohm & Blakiston Colls.
p'. Ad. sk.	Kuril Islands (*Snow*).	Seebohm Coll.
q'–*s'*. ♂ ♀ ad. sk.	St. Michael's, Alaska, June (*E. W. Nelson*).	Salvin-Godman Coll.
t', *u'*. Ad. sk.	North-west America (*Capt. Collinson, R.N.*).	H.M.S. 'Endeavour.'
v'. Vix ad. sk.	North Land Expedition.	Capt. Sir Geo. Back, R.N. [P.].
w'. Vix ad. sk.	Jakobshavn, Greenland, Aug. 6, 1867 (*E. Whymper*).	H. Saunders Coll.
x'–*z'*, *a''*–*e''*. Sterna.	France.	Purchased.

2. Stercorarius crepidatus.

The Brown Gull, *Albin, Nat. Hist. B.* ii. p. 78 (1740).

The Arctick Bird (Hen), *Edwards, Nat. Hist. B.* iii. p. & pl. 149 (1751: Hudson's Bay; juv.).

Catharacta cepphus, *Brünn. Orn. Bor.* p. 36 (1764).

Catharacta coprotheres, *Brünn. Orn. Bor.* p. 38 (1764: the dark form).

Black-toed Gull, *Penn. Brit. Zool.* ii. p. 419, pl. 11 (1768: jr.); *Lath. Gen. Syn.* iii. pt. 2, p. 387 (1785); *id. Gen. Syn. Suppl.* i. p. 266 (1787).

Arctic Gull, *Penn. Brit. Zool.* ii. p. 420 (1768: adult); *Lath. Gen. Syn.* iii. pt. 2, p. 389, pl. xcix. (1785).

Larus crepidatus, *Banks, in Cook's Voy., Hawkesworth's ed.* ii. p. 15 (1773: Atlantic, 8° 25′ N., 22° 4′ W.); *Gm. S. N.* i. p. 602 (1788); *Bonn. Ency. Méth.* i. p. 86 (1790); *Lath. Ind. Orn.* p. 819 (1790);

Wolf u. Meyer, Naturg. Vög. Deutschl. Heft 20, p. 57, cum 2 figs. (1805); *B. Meyer, Ann. Wetterau Ges.* ii. p. 554 (1810: Hanau); *Meyer u. Wolf, Taschenb. deutschl. Vög.* ii. p. 493 & fig. p. 465 (1810); *Meisner & Schinz, Vög. Schweiz*, p. 280 (1815); *Scoresby, Arct. Reg.* i. p. 534 (1820); *Edmonston, Mem. Wern. Soc.* iv. p. 274 (1823).

Le Labbe ou Stercoraire, *Buff. Hist. Nat. Ois.* viii. p. 441, pl. xxxiv. (1783).

Le Stercoraire, *Daubent. Pl. Enl.* pl. 991 (1786).

Larus parasiticus (*nec Linn.*), *Bodd. Tabl. Pl. Enl.* p. 58, no. 991 (1783); *Mohr, Island. Naturh.* p. 43 (1786).

Stercorarius parasiticus (*nec Linn.*), *Schaeffer, Mus. Orn.* p. 62, pl. 37 (1789); *Kaup, Natürl. Syst.* p. 46, p. 47, & p. 195 (1829); *Selys-Longch. Fn. Belg.* p. 155 (1842); *Gray, List B. Br. Mus.*, Anseres, p. 167 (1844); *id. Gen. Birds*, iii. p. 653 (1846); *Baird, Cass., & Lawr. B. N. Amer.* p. 839 (1858); *Evans & Sturge, Ibis*, 1859, p. 172 (W. Spitsbergen); *Reinhardt, op. cit.* 1861, p. 16 (Greenland); *Newton in Baring-Gould's Iceland*, p. 419 (1863); *Blakiston, Ibis*, 1863, p. 152; *Gray, Cat. Brit. B.* p. 228 (1863); *B. Ross, Nat. Hist. Rev.* 1862, p. 289; *Malmgren, Œfv. Förh. Ak. Stockh.* 1864, p. 390; *id. J. f. O.* 1865, p. 205 (Spitsbergen); *Coues, Pr. Philad. Acad.* 1863, p. 132; *Newton, Ibis*, 1865, p. 510 (Spitsbergen); *Gould, B. Gt. Brit.* v. pl. 80 (1865); *Degl. & Gerbe, Orn. Eur.* ii. p, 397 (1867); *Dall & Bann. Tr. Chic. Acad.* i. p. 303 (1869: Alaska); *Gillett, Ibis*, 1870, p. 307 (Novaya Zemlya); *Hutton, Cat. N. Zeal. B.* p. 40 (1871); *Gurney, in Andersson's B. Damara Ld.* p. 357 (1872); *Gray, Hand-l. B.* iii. p. 110, no. 10937 (1871); *Coues, Key N. Amer. B.* p. 309 (1872); *id. Elliott's Rep. Prybiloff Group*, no. 541 (1874); *Feilden, Zool. s. s.* p. 3292 (1872: Færoes); *Hume, Str. F.* i. p. 268 (1873: Sindh); *Buller, B. New Zeal.* p. 268 (1873); *Eaton, Zool. s. s.* p. 3813 (1874: Spitsbergen); *Coues, B. N.-West*, p. 611 (1874); *Sharpe, Voy. 'Erebus' & 'Terror,'* i. App. p. 32 (1875: N. Zealand); *Newton, Arct. Man.* p. 107 (1875); *Irby, Orn. Strs. Gibr.* p. 216 (1875); *Blanford, East. Pers.* ii. p. 289 (1876: Mekran coast and Persian Gulf); *Bessels, Amerik. Nordpol-Exp.* p. 312 (1879); *Kumlien, Bull. U.S. Nat. Mus.* no. 15, p. 95 (1879: Cumberland Sound); *Villada, An. Mus. Nac. Mexico*, 1879, p. 279; *Elliott, Seal Is. of Alaska*, p. 132 (1882); *Coues, Check-list N. Am. B.* p. 120 (1882); *Menzbier, Bull. Mosc.* lxiii. p. 11 & p. 38 (1883): *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1884: Labrador); *Coues, Key N. Amer. B.* 2nd ed. p. 736 (1884); *A. Chapman, Tr. Northumb.* viii. pt. 1, p. 156 (1884: Spitsbergen); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 335 (1884); *Turner, Auk*, 1885, p. 158 (Alaska); *Henshaw, t. c.* p. 232 (Sta. Barbara, Cala.); *Evermann, op. cit.* 1886, p. 88 (Ventura Co., Cala.); *Fischer & Pelz. MT. orn. Ver. Wien*, x. p. 120 (1886: Jan Mayen I.); *A. O. U. Check-list N. Amer. B* p. 85 (1886); *Turner, Contrib. N. H. Alaska*, p. 123 & p. 185 (1886); *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 124 (Commander Is.); *Nelson, Rep. N. H. Alaska*, p. 47 (1887); *Booth, Rough Notes*, iii. (1887); *Ridgw. Man. N. Amer. B.* p. 22 (1887); *Baird, Auk*, 1887, p. 71; *Taczan. Ornis*, 1888, p. 509 (Poland); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 64 (1889); *Cory, B. West Indies*, p. 298 (1889); *Greely, Rep. Exped. Lady Frankl. Bay*, ii. p. 21 (1888); *Dutcher, Auk*, 1889, p. 125; *Scott, t. c.* p. 160 (Florida); *Chamberl. t. c.* p. 213 (S. Greenland); *Clarke, Zool.* 1890, p. 48 (Jan Mayen I.); *Keller, Orn. Carinthiæ*, p. 300 (1890); *Clarke, Auk*, 1890, p. 320

(Hudson Bay); *Hagerup, B. Greenl.* p. 45 (1891); *R. MacFarl. Pr. U.S. Nat. Mus.* xiv. p. 417 (1891: Barren Grounds); *Hartert, Kat. Vogelsam. Senck.* p. 243 (1891); *Büttikofer, C. R.* ii. *Congr. Orn. Intern.* ii. p. 175 (1892: Liberia); *Cory, Cat. B. West Ind.* p. 82 (1892: Barbadoes); *Hartert, Ibis*, 1892, p. 521 (E. Pussia); *Ridgw. Pr. U.S. Nat. Mus.* xvi. p. 663 (1893; Kadiak, Alaska); *Taczan. Mém. Acad. Pétersb.* (7) xxxix. p. 1056 (1893: E. Siberia); *Loomis, Pr. Cala. Acad.* v. p. 213 (1895: Monterey).

Lestris crepidata, *Illiger, Prodr.* p. 273 (1811); *Temm. Man. d'Orn.* p. 515 (1815); *Degland, Mém. Soc. Lille*, 1838, pte. iii. p. 117 (1839); *Schinz, Europ. Faun.* p. 390 (1840); *Licht. Nomencl. Av.* p. 99 (1854); *Palmén, Vega-Exped. Vetensk.* Bd. v. p. 380 (1887); *Giglioli*, 3° *Resoc. Av. Ital.* p. 68 (1891: Catania, black race).

Oceanus parasiticus, *Koch, Syst. baier. Zool.* p. 381 (1816: type of genus).

Prœdatrix, *Vieillot, Analyse*, p. 65 (1816): type "Le Labbe de Buffon," which is *S. crepidatus*.

Catarracta cephus, *Leach, Syst. Cat. Mamm. &c. Brit. Mus.* p. 39 (1816: Orkney).

Lestris parasitica, *Nilss.* (part.) *Orn. Suec.* p. 181 & p. 184 (1817: jr.); *E. Sabine, Tr. Linn. Soc.* xii. pt. 2, p. 551 (1819: Davis Str.); *Temm.* (part.) *Man. d'Orn.* p. 796 (1820); *Faber, Prodr. isländ. Orn.* p. 105 (1822); *Boie, Isis*, 1822, p. 562; *Veitch, Mem. Wern. Soc.* iv. p. 247 (1822: Foula, Shetland); *Brehm, Beitr. Vogelk.* iii. p. 853 (1872); *Meyer, Taschenb. Zusätze*, p. 214 (1822); *J. Sabine* (part.), *Franklin's Polar Sea*, App. 697 (1823: Hudson Bay); *Brehm, Lehrb.* p. 744 & p. 995 (1824); *Bp. Ann. Lyc. N. Y.* ii. p. 365 (1828); *Graba, Reis. n. Färö*, p. 189 (1830); *Brehm, Vög. Deutschl.* p. 722 (1831); *Lesson, Traité*, p. 616 (1831); *Savi, Orn. Tosc.* iii. p. 46 (1831); *Naum. Vög. Deutschl.* x. p. 506, pls. 272 & 273 (1840); *Schinz, Europ. Faun.* p. 390 (1840); *Kjærb. Danm. Fugle*, p. 346, taf. xliii. (1852); *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 208 (1857); *Jaub. et B.-Lapomm. Rich. Orn.* p. 387 (1859); *Müller, Vidensk. Meddel.* 1862, p. 64 (1863: Færoes); *Preyer, Reis. n. Island*, p. 417 (1872); *Sunder. Sv. Fogl.* pl. 51. figs. 2 and 3 (1863?); *Malmgr. Öfv. Förh. Ak. Stockh.* 1863, p. 105 (Spitsbergen); *Droste, Vogelw. Borkum*, p. 359 (1869); *Fritsch, Vög. Eur.* p. 479, taf. 58. fig. 4 (1870); *Saund. Ibis*, 1871, p. 400; *Salvad. Faun. Ital., Ucc.* p. 297 (1872); *Harting, Handb. Brit. B.* p. 78 (1872); *Palmén, Finlands Fogl.* p. 624 (1873); *Collett, Forh. Selsk. Christ.* 1873, p. 298 (N. Norway); *Pelzeln, Ibis*, 1873, p. 52 (the probable type of Latham's Arctic Gull); *Sundev. Öfv. Förh. Ak. Stockh.* 1874, p. 21 (Spitsbergen); *Finsch, Verh. z.-b. Ver. Wien*, 1879, p. 277 (West Siberia); *Bunge, Mél. Biol.* xii. livr. 1, p. 50 (1884); *Tacz. Bull. Soc. Zool. Fr.* 1883, p. 341 (Bering I.); *Homeyer, Ornis*, 1885, p. 80 (Germany); *Lütken, t. c.* p. 145 (Denmark); *Gröndal, op. cit.* 1886, p. 370 (Iceland); *Schneider, op. cit.* 1887, p. 551 (Upp. Alsace); *Hartert, MT. orn. Ver. Wien*, 1887, p. 180 (E. Prussia); *Riesenthal, Wasserrög. Mitteleurop.* p. 131 (1889); *Gätke, Vogelw. Helgol.* p. 590 (1891); *Fatio & Studer, Cat. Ois. Suisse*, p. 60 (1892).

Stercorarius crepidatus, *Vieill. Nouv. Dict. d'Hist. Nat.* xxxii. p. 155 (1819); *id. Faune Franç., Ois.* p. 386 (1828?); *Saunders, P. Z. S.* 1876, p. 326 (revision); *Dresser, B. Eur.* viii. p. 471, pl. 611, and pl. 612. fig. 2 (1876); *Seeb. & H-Br. Ibis*, 1876, p. 453 (Petchora); *Collett, Nyt Mag. Naturv.* 1877, p. 207 (N. Norway); *Saunders,*

Bull. Soc. Zool. Fr. 1877, p. 205 (S. Spain); *id. Journ. Linn. Soc., Zool.* xiv. p. 392 (1878: distribution); *id. Zool.* 1880, p. 4 (Shetland); *Feilden*, in *Markham's Polar Reconn.* p. 335 (1881: Novaya Zemlya, breeding); *Bocage, Orn. Angola*, p. 508 (1881: Mossamedes); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *Milne-Edw. & Grandid. H. N. Madag., Ois.* p. 644 (1882); *Seebohm* (*Henke*), *Ibis*, 1882, p. 386 (Dwina and Kanin Penins., breeds); *Bean, Pr. U.S. Nat. Mus.* 1882, p. 169 (Alaska); *Nelson, Cruise 'Corwin,'* p. 110 (1883); *Cocks, Zool.* 1883, p. 485 (Spitsbergen); *Sharpe, ed. Layard's B. S. Afr.* p. 695 (1884); *Seebohm, Ibis*, 1884, p. 32 (Kuril Is.); *Saunders, t. c.* p. 391 (S.W. France); *id. 4th ed. Yarr. Brit. B.* iii. p. 674 (1884); *Murdoch, Rep. N. H. Pt. Barrow*, p. 126 (1885); *Büchner, Beitr. Russ. Reiches*, (2) ii. p. 132 (1885: St. Petersburg); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 13 (1886); *Dubois, Bull. Mus. Belg.* iv. p. 24 (1886); *Giglioli, Avif. Ital.* p. 437 (1886); *Tait, Ibis*, 1887, p. 397 (Portugal); *Salvad. Ucc. Ital.* p. 291 (1887); *H-Br. & Buckl. Faun. Sutherl.* p. 236 (1887); *Legge, Pr. R. Soc. Tasmania*, 1886, p. 243 (1887); *H-Br. & Buckl. Faun. Outer Hebr.* p. 151 (1888); *Feilden, Zool.* 1888, p. 350 (Barbadoes); *id. Ibis*, 1889, p. 503; *Ramsay, Tab. List Austr. B.* p. 22 (1888); *Saunders, Man. Brit. B.* p. 675 (1889); *Buller, B. N. Zealand*, 2nd ed. ii. p. 66 (1888); *Giglioli*, 1° *Resoc. Avif. Ital.* p. 651 (1889); *id.* 2° *Resoc.* p. 661 (1890); *Buckl. & H-Br. Faun. Orkneys*, p. 238 (1891); *iid. Faun. Argyll &c.* p. 175 (1892); *Collett, Nyt Mag. Naturv.* Bd. xxxv. p. 298 (1894); *Pears. & Bidw. Ibis*, 1894, p. 236 (N. Norway); *Irby, Orn. Str. Gibr.* 2nd ed. p. 303 (1895).

Lestris pomarina (*nec Temm.*), *E. Sabine, App. Parry's 1st Voy.* p. ccvi (1821: Pr. Regent Inlet).

Lestris boji, *Brehm, Lehrb.* p. 991 (1824); *id. Vög. Deutschl.* p. 719 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 336 (1855).

Lestris schleepi, *Brehm, Lehrb.* p. 993 (1824); *id. Vög. Deutschl.* p. 720 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 336 (1855).

Lestris benickii, *Brehm, Lehrb.* p. 996 (1824); *id. Vög. Deutschl.* p. 723 (1831).

Cataractes parasiticus, *Flem. Brit. An.* p. 138 (1828); *Selby, Ill. Brit. Zool.* ii. p. 520 (1832).

Lestris macropteros, *Brehm, Vög. Deutschl.* p. 721 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 336 (1855).

Lestris richardsoni, *Swains. Faun. Bor.-Amer., Birds*, p. 433, pl. 73 (1831: Barren Grounds); *Nuttall, Man. Orn.* ii. p. 319 (1834); *Audub. Orn. Biogr.* iii. p. 503 (1835); *Jenyns, Man. Brit. Vertebr.* p. 282 (1835); *Eyton, Cat. Brit. B.* p. 51 (1836); *Gould, B. Eur.* v. pl. 441 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Audub. Synops.* p. 332 (1839); *Schinz, Europ. Faun.* p. 392 (1840); *Temm. Man. d'Orn.* ed. 2, pt. 4, p. 493 & p. 499 (1840); *Werner, Atlas, Palmipèdes*, pl. 33 (1840); *Crespon, Orn. Gard*, p. 495 (1840); *Bouteille, Orn. Dauphiné*, ii. p. 254 (1843); *Audub. B. N. Amer.* 8vo ed. vii. p. 190, pl. 452 (1844); *Giraud, B. Long Isl.* p. 367 (1844); *Crespon, Faun. Mérid.* ii. p. 130 (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 611 (1845); *Hewits. Eggs Brit. B.* ii. p. 453, pl. 130 (1846); *Thomps. B. Irel.* iii. p. 394 (1851); *Macgill. Brit. B.* v. p. 492 (1852); *Meyer, Ill. Brit. B.* vii. p. 177, pl. 315 (1857); *Chapman, Trav. S. Afr.* ii. p. 425 (1868: Walvisch Bay); *R. Gray, B. West Scotl.* p. 496 (1871).

Lestris cepphus, *Nuttall, Man. Orn.* ii. p. 318 (1834).

Lestris parasitica, *Keys. u. Blas. Wirb. Eur.* p. 240 (1840); *Bp. Cat.*

Ucc. Eur. p. 80 (1842); *Schl. Rev. Crit.* p. cxxxiv (1844); *Middend. Sib. Reise*, p. 241 (1853); *Schl. Vog. Nederl.* p. 589, pl. 337 (1854); *id. Dier. Nederl. Vogels*, p. 233 (1861); *Heuglin, Ibis*, 1872, p. 65 (Novaya Zemlya); *Jäckel & Blas. Vög. Bayerns*, p. 355 (1891).

Cataractes richardsonii, *Macgill. Man. Br. Orn.* pt. ii. p. 492 (1842).

Richardson's Skua, *Yarr. Brit. B.* iii. p. 489 (1843).

Stercorarius cepphus, *Degl. Orn. Eur.* ii. p. 295 (1849); *Feilden, apud Anderson, Zool.* 1879, p. 8 (Prince Albert Land); *Büttikof. Notes Leyden Mus.* x. p. 106 (1888: Liberia).

Lestris spinicauda, *Hardy, Rev. et Mag. Zool.* 1854, p. 657; *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 210 (1857); *Verr. Voy. Vinson Madag. Annexe B*, p. 4 (1864).

Lestris benickenii, *Brehm, Naum.* 1855, p. 294; *id. Vogelf.* p. 336 (1855).

Lestris parasiticus, var. *a.* coprotheres, *Bp. Consp. Av.* ii. p. 209 (1857).

Lestris cephus, *Hartl. Orn. W.-Afr.* p. 253 (1857: Gaboon, in Paris Mus.); *Borggr. Vogelf. Norddeutschl.* p. 141 (1869).

Lestris thuliaca, *Preyer, Reise n. Island*, p. 418 (1862).

Stercorarius spinicauda, *Layard, B. S. Afr.* p. 366 (1867); *Coues, Pr. Philad. Acad*, 1863, p. 121 & p. 135 (critical).

Stercorarius tephras, *Malmgren, J. f. O.* 1865, p. 390 (Spitsbergen).

Stercorarius asiaticus, *Hume, Str. F.* i. p. 269 (1873: Mekran Coast); *Butler & Hume, op. cit.* v. p. 294 (1877); *Hume, op. cit.* viii. p. 115 (1879; list).

Stercorarius richardsoni, *Coues, Pr. Philad. Acad.* 1863, p. 121 & p. 135 (critical); *Seebohm, Brit. B.* iii. p. 353 (1885); *id.* (*Bunge*) *Ibis*, 1888, p. 349 (Gt. Liakoff Is.).

Lestris longicauda, *Finsch, J. f. O.* 1872, p. 241; *id. op. cit.* 1874, p. 203 (N. Zealand).

Adult in breeding-plumage.—Pale-breasted form. Feathers at the base of the bill dull white; forehead and lores ash-brown, crown and occiput darker brown; hind neck dull white, shading into ash-brown on the shoulders and thickly streaked with golden straw-colour; mantle, wings, tail-coverts, and rectrices darker brown, the secondaries blackish, the shafts of the principal primaries white; under tail-coverts, abdomen, and under wing ash-brown; breast and chin dull white; throat and sides of the neck whitish, streaked with straw-yellow: bill brownish horn-colour, darker in front of the cere; tarsi and toes black.—*Dark form.* Similar, but washed with sooty throughout, the underparts being nearly as dark as the mantle, which is of a deeper tone than in the pale-breasted form; the acuminate feathers of the neck yellow, but not so strongly contrasted: bill rather blacker. Total length 20 inches; culmen 1·5; wing 13; tail 5 without the central pair, which are often 3 in. longer, making a total of 8; tarsus 1·75, middle toe with claw 1·7.

The sexes are alike externally.

The dark-breasted form is rare to the northwards of lat. 70°, beyond which the white-breasted is the representative form; but southward both races are found. The colour has no relation to sex, and dark and light birds are constantly to be found paired. The offspring of this union is, when adult, intermediate in character, having a dusky

whitish throat, more or less of an ash-brown band across the breast, and a considerable amount of brown on the flanks.

Individuals irregularly spotted with white are not very rare.

Adult in winter. As in the preceding species (see p. 326).

Young. The offspring of two white-breasted birds is pale cinnamon-brown on the head and underparts, with dark streaks and bars; the feathers of the upper parts umber-brown with rufous edges. The offspring of two dark birds is much darker, with greyer tips to the feathers; while the offspring of one white breasted and one sooty bird is intermediate, as might be expected. Tarsi and bases of the toes yellowish, the front portion of the toes black.

Immature. Streaked and mottled with various shades of brown on the upper surface, mantle chiefly umber; upper tail-coverts barred with dark brown, white, and rufous; under surface more or less barred with brown on a paler ground.

Nestling. Sooty brown above, paler below; but the downy young of dark parents are deepest in hue.

Hab. Circumpolar and subarctic regions, breeding as far south as about 55° 45′ in the Scottish Islands; in winter along the coasts of Europe, Africa down to the Cape of Good Hope, the Persian Gulf and vicinity, Australia, New Zealand, the North Pacific, and the Atlantic as far south as Rio de Janeiro.

a. ♀ juv. sk.	Brighton, Sept.	Dr. A. Günther [P.].
b. Juv. st.	Gravesend, Sept.	Purchased.
c. Juv. st.	Aldeburgh, Suffolk, Sept.	Th. Fisher, Esq. [P.].
d. Ad. sk.	Spurn Head, Yorks., winter.	Th. Fisher, Esq. [P.].
e. Ad. sk.	Flamborough, Yorks.	J. H. Gurney, Esq. [P.].
f. ♀ vix ad. sk.	Moy Estuary, Co. Mayo, May (*R. Warren*).	H. Saunders Coll.
g, *h*. Ad. & vix ad. st.	North Uist, Hebrides, summer.	Th. Walker, Esq. [P.].
i–*m*. Ad. st.; *n*, *o*. Pull. st.	Hoy, Orkneys.	Purchased.
p, *q*. Pull. sk. & st.	Hoy, Orkneys (*Dunn*).	J. Gould, Esq. [C.].
r–*u*. Ad. sk.	Orkneys, summer (*Hubbard*).	Salvin-Godman Coll.
v. ♂ ad. sk.	Orkneys (*Dunn*).	Hume Coll.
w–*z*. ♂ ♀ ad.; *a*′, *b*′. Pull. st.	Mousa, Shetlands, June 20.	Lt. G. H. Bruce, R.N. [P.].
c′–*f*′. ♂ ♀ ad.; *g*′–*i*′. ♂ ♀ imm.; *k*′. ♀ juv. sk.	Færoe Islands, June–Aug. (*H. C. Müller*).	E. Hargitt Coll.
l′. Pull. sk.	Færoes, July 8th (*H. C. M.*).	Col. H. W. Feilden [P.].
m′. ♀ ad.; *n*′, *o*′. Pull. sk.	Færoes, July (*H. C. M.*).	H. Saunders Coll.
p′. ♀ juv. sk.	Færoes, Sept. 27 (*H. C. M.*).	H. Saunders Coll.
q′. ♂ ad. sk.	Iceland (*W. Procter*).	Hume Coll.
r′. Ad. st.	Spitsbergen (*Capt. Sir E. Parry*).	The Admiralty [P.].
s′–*u*′. ♂ ♀ ad. sk.	Bodö, Norway, May 26th, June 8th (*Godman*).	Salvin-Godman Coll.

v'. ♂ ad. sk.	Kistrand, Porsanger Fiord, June (*H. Seebohm*).	Seebohm Coll.
w'. Ad. sk.	Vadsö, Varanger Fiord, June (*H. S.*).	Seebohm Coll.
x'–z'. ♂ ad. sk.	Petchora River, June, July (*S. & H-B.*).	Seebohm and Harvie-Brown Colls.
a''. Juv. sk.	Podarata Tundra, N. West Siberia, Aug. 2nd.	Dr. O. Finsch [C.].
b''. Juv. sk.	Belgian Coast, winter.	H. Saunders Coll.
c''. Juv. sk.	Havre, France, Sept. 16th (*V. Pluche*).	E. Hargitt Coll.
d''–g''. ♂ ad. & juv. sk.	Malaga, Spain, Aug. 3rd and Oct. (*F. de los Rios*).	H. Saunders Coll.
h''. ♀ vix ad. sk.	Oran, Algeria, March (*G. E. S.*).	Shelley Coll.
i''. Imm. sk.	Damaraland, S.W. Africa (*C. Andersson*).	H. Saunders Coll.
k''. Juv. sk.	Cape of Good Hope.	Sir A. Smith [P.].
l''. Juv. sk.	Cape of Good Hope.	Purchased.
m''–r''. Imm. & juv. sk.	Table Bay, S. Africa, winter (*E. L. Layard*).	H. Saunders Coll.
s''. ♂ imm. sk.	River Derwent, Hobart, Tasmania, Jan. 27th (*Col. W. V. Legge*).	H. Saunders Coll.
t''. ♂ imm. sk.	Pusnee, Mekran Coast, Feb. 16, 1872 (*A. O. H.*).	Hume Coll. (Type of *Sterc. asiaticus*, Str. F. 1873, p. 269.)
u''. ♀ imm. sk.	Kuril Islands, summer (*H. J. Snow*).	Capt. Blakiston [P.].
v''–x''. ♂ ♀ ad. sk.	Kuril Islands, summer (*H. J. S.*).	Seebohm Coll.
y'', z''. Ad. & imm. sk.	North-west America (*Capt. Collinson*).	Voy. H.M.S. 'Endeavour.'
*a*³. ♀ ad. sk.	Yukon delta, May (*E. W. Nelson*).	Salvin-Godman Coll.
*b*³*–f*³. ♂ ♀ ad.; *g*³. Juv. sk.	St. Michael's, Alaska, June–Aug. (*E. W. N.*).	Salvin-Godman Coll.
*h*³. ♀ imm. sk.	San Diego, California, Dec. (*H. W. Henshaw*).	Salvin-Godman Coll.
*i*³. ♂ juv. sk.	Rio de Janeiro, Brazil, June 20th (*J. Young*).	H. Saunders Coll.
*k*³. Juv. sk.	Boston Harbour, Mass., Sept. (*H. W. Henshaw*).	Salvin-Godman Coll.
*l*³. Imm. sk.	Labrador, Aug. (*H. W. H.*).	Salvin-Godman Coll.
*m*³. Ad. st.	"North America" [dark breast].	Gen. T. Hardwicke [P.].
*n*³. Ad. sk.	Northern Sea.	Hudson Bay Co. [P.].
*o*³, *p*³. Ad. & juv. sk.	Hudson Bay (*Harris*).	H. Saunders Coll.
*q*³. Ad. sk.	Repulse Bay, Melville Peninsula [white breast].	Dr. John Rae [P.].
*r*³, *s*³. Ad. sk.	Greenland.	Hume Coll.
*t*³. Juv. sk.	Disco, Aug. 22 (*E. Whymper*).	H. Saunders Coll.
*u*³. Ad. sk.	Whalefish Is., S. of Disco (*Lt. Robertson*).	The Admiralty [P.].
*v*³. ♂ ad. sk.	Godthaal, June (*Moller*).	Purchased.

w^3. ♀ ad. sk.	Lichtenfels, July (*Dr. O. Finsch*).	H. Saunders Coll.
x^3. Skeleton.	France.	Purchased.
y^3. Skeleton.		Purchased.

3. Stercorarius parasiticus.

The Arctick Bird (Cock), *Edwards, Nat. Hist. E.* iii. pl. 148 (1750).
Le Stercoraire à longue queue, *Briss. Orn.* vi. p. 155 (1760).
Catharacta parasitica, *Brünn. Orn. Bor.* p. 37 (1764: "rectricibus duabus longissimis"); *Fabr. Faun. Grœnl.* p. 103 (1780).
Larus parasiticus, *Linn. S. N.* i. p. 226 (1766: "rectricibus duabus intermediis longissimis"); ? *Müller, Zool. Dan. Prod.* p. 166 (1774); *Phipps, Voy. N. Pole*, p. 187 (1774); *Gm. S. N.* i. p. 601 (1788); *Lath. Ind. Orn.* ii. p. 819 (1790); *Bonn. Enc. Méth.* i. p. 56 (1790); *Bechst. Naturg. Deutschl.* ii. p. 821 (1791); *Scoresby, Arct. Reg.* i. p. 534 (1820); *B. Meyer, Ann. Wetterau Ges.* i. p. 276 (1809: Kostheim-am-Main); *Meisner & Sch. Vög. Schweiz*, p. 278 (1815); *Manby, Voy. Greenl.* p. 89, cum tav. (1822).
Le Labbe à longue queue, *Buffon, Hist. Nat. Ois.* viii. p. 445 (1783).
Le Stercoraire à longue queue de Sibérie, *Daubent. Pl. Enl.* pl. 762 (1786).
Cataracta parasitica, *Retz. Faun. Suec.* p. 160 (1800).
Catarractes parasita, *Pall. Zoogr. Rosso-Asiat.* p. 310 (1811).
Lestris parasitica, *Illiger, Prodr.* p. 273 (1811); *Temm. Man. d'Orn.* p. 512 (1815); *Nilss.* [part.] *Faun. Suec.* pp. 181 & 184 (1817); *E. Sabine, Tr. Linn. Soc.* xii. pt. ii. p. 551 (1819: the adults); *id. Parry's 1st Voy.* App. p. ccvi (1821: Polar Sea to Melville Isl.); *Temm.* [part.] *Man. d'Orn.* p. 796 (1820); *J. Richardson, Parry's 2nd Voy.* App. p. 361 (1825: N. part of Southampton Land); *J. C. Ross, Parry's 3rd Voy.* App. p. 105 (1826); *id. Parry's 4th Voy.* App. p. 196 (1828: Walden I.; not N. of 82°); *Werner, Atlas, Palmipèdes*, pl. 34 (1828); *Swains. & Rich. Faun. Bor.-Amer., Birds*, p. 430 (1831); *Gould, P. Z. S.* 1832, p. 189 (Orkneys: first record in Gt. Britain); *Nuttall, Man. Orn.* ii. p. 317 (1834); *Jenyns, Brit. Vertebr.* p. 283 (1835); *Audubon, Orn. Biogr.* iii. p. 470 (1835 [chiefly]); *Eyton, Cat. Brit. B.* p. 52 (1836); *Gould, B. Eur.* v. pl. 442 (1837); *Bp. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Audub. Synopsis*, p. 333 (1839); *Temm. Man. d'Orn.* 2me éd. 4me pte. pp. 493 & 501 (1840); *H. L. Meyer, Ill. Brit. B.* iv. pl. (1843); *Audub. B. Amer.* 8vo ed. vii. p. 192, pl. 453 (1844); *Giraud, B. Long Isl.* p. 364 (1844); *Macgill. Brit. B.* v. p. 503 (1852); *Licht. Nomencl. Av.* p. 99 (1854); *H. L. Meyer, Ill. Brit. B.* vii. p. 174, pl. 314 (1857); *E. Adams, Ibis*, 1878, p. 441 (N. W. America); *Rodd, B. Cornwall*, p. 174 (1880).
Oceanus crepitatus, *Koch, Syst. baier. Zool.* p. 381 (1816).
Stercorarius longicauda, *Vieill. Nouv. Dict. Hist. Nat.* xxxii. p. 157 (1819); *Newton, Ibis*, 1865, p. 511 (Spitsbergen); *Degl. & Gerbe, Orn. Eur.* ii. p. 399 (1867); *Gillet, Ibis*, 1870, p. 307 (Novaya Zemlya); *Gould. B. Gt. Brit.* v. pl. 81 (1873); *Eaton, Zool. s. s.* p. 3813 (1874: Spitsbergen); *A. H. Cocks, Zool.* 1884, p. 232 (Spitsbergen); *Baird, Brewer, & Ridgw. Water-B. N. Amer.* ii. p. 339 (1884); *Turner, Auk*, 1885, p. 158 (Nearer islands, Alaska); *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 87 (1885: Commander Is.); *id. Pr. U.S. Nat. Mus.* 1887, p. 125 (same loc.); *A. O. U. Check-l. N. Amer. B.* p. 85 (1886); *Alléon, Ornis*, 1886, p. 422 (Dobrudscha, once); *Turner, Contr. N. H. Alaska*, p. 123

(1886); *Ridgw. Man. N. Amer. B.* p. 23 (1887); *Nelson, Rep. N. H. Coll. Alaska*, p. 48 (1887); *Reichenow, Syst. Verz. Vög. Deutschl.* p. 64 (1889); *Hagerup, B. Greenl.* p. 45 (1891); *R. MacFarl. Pr. U.S. Nat. Mus.* 1891, p. 417 (Barren Gr.); *Stone, P. Ac. Philad.* 1892, p. 147 (Melville Bay); *Allen, Auk*, 1893, p. 123 (distribution); *Taczan. Mém. Ac. Pétersb.* (7) xxxix. p. 1059 (1893: E. Siberia); *Loomis, Pr. Cala. Acad.* v. p. 213 (1895: Monterey, Augt.; first time).

Stercorarius cepphus, *Leach, Thomson's Ann. of Philos.* xiii. p. 61 (1819); *id. in Ross's Voy. Baffin B.* 4to ed. App. ii. p. lvi (1819); *id. op. cit.* 8vo ed. ii. p. 163 (1819); *Steph. in Shaw's Gen. Zool.* xiii. pt. 1, p. 211, pl. 23 (1826); *Gray, List B. Brit. Mus.*, Anseres, p. 167 (1844: partim); *id. Gen. B.* iii. p. 653 (1846); *Baird, Cass., & Lawr. B. N. Amer.* p. 840 (1858); *B. Ross, Nat. Hist. Rev.* 1862, p. 289; *Schl. Mus. P.-Bas*, Lari, p. 49 (1863); *Blakiston, Ibis*, 1863, p. 152 (Mackenzie River); *Gray, Cat. Brit. B.* p. 229 (1863); *id. Hand-l. B.* iii. p. 110, no. 10938 (1871); *Fischer & Pelz. MT. orn. Ver. Wien*, x. p. 210 (1886: Jan Mayen I.); trausl. *Clarke, Zool.* 1890, p. 48.

Lestris crepidata (*nec Banks, nec Gm.*), *Brehm & Schil. Beitr. z. Vögelk.* iii. p. 861 (1822); *Brehm, Lehrb. Naturg.* p. 747, *and Zusät.* p. 998 (1824); *id. Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 724 (1831); *Naum. Vög. Deutschl.* x. p. 534, pl. 274 (1840); *Kjærb. Danm. Fugl.* p. 347, taf. xliii. (1852); *Brehm, Naum.* 1855, p. 294; *id. Vogelfang*, p. 336 (1855).

Lestris buffonii, *Boie, Isis*, 1822, p. 562; *Meyer & Wolf. Tasch.* iii. p. 212 (1822); *Bp. Ann. Lyc. N. Y.* ii. p. 364 (1828); *id. Comp. List B. Eur. & N. Amer.* p. 63 (1838); *Lesson, Traité*, p. 616 (1831); *Schinz, Europ. Faun.* p. 391 (1840); *Schl. Rev. Crit.* p. cxxxiv (1844); *Yarr. Brit. B.* 2nd ed. iii. p. 616 (1845); *Middend. Sib. Reise*, ii. p. 241, taf. xxiv. fig. 2 (1853); *Preyer, Reise n. Island*, p. 417 (1862); *Hewitson, Eggs Brit. B.* ii. p. 508 pl. cxliii. fig. 1 (1856); *Irby, Ibis*, 1873, p. 97 (Str. Gibraltar); *R. Gray, B. West Scotl.* p. 498 (1871); *Salvad. Faun. Ital., Ucc.* p. 297 (1872); *Palmén, Finlands Foglar*, p. 627 (1873); *R. Anderson*, apud *Feilden, Zool.* 1879, p. 8 (Cambridge Bay; H.M.S. 'Enterprise'); *Taczan. Bull. Soc. Zool. Fr.* 1883, p. 341 (Kamtschatka); *Bunge, Mél. Biol.* xii. livr. 1, p. 51 (1884); *Homeyer, Ornis*, 1885, p. 80 (Germany); *Gröndal, op. cit.* 1886, p. 370 (Iceland, rare); *Keller, Orn. Carinthiæ*, p. 300 (1890); *Gätke, Vogelw. Helyol.* p. 590 (1891); *id. B. Heligol.* (Eng. transl.), p. 567 (1895).

Stercorarius buffoni, *Kaup, Natürl. Syst.* pp. 46–47 & p. 195 (1829); *Reinhardt, Ibis*, 1861, p. 16 (Greenland); *Newton in Baring-Gould's Iceland*, p. 419 (1863); *Coues, Pr. Philad. Acad.* 1863, p. 136 (critical); *Malmgr. Œfv. Förh. Ak. Stockh.* 1864, p. 391 (Spitsbergen); *Dall & Bann. Tr. Chic. Acad.* i. p. 304 (1869: Alaska); *Coues, Key N. Amer. B.* p. 310 (1872); *id. B. N.-West*, p. 615 (1874); *id. Elliot's Rep. Prybiloff Group*, no. 542 (1874); *Irby, Orn. Str. Gibralt.* p. 216 (1875); *Kumlien, Bull. U.S. Nat. Mus.* no. 15, p. 95 (1879: Davis Strs.); *Elliott, Seal Is. Alaska*, p. 132 (1882); *Coues, Check-l. N. Amer. B.* p. 120 (1882); *Seebohm (Henke), Ibis*, 1882, p. 386 (Kanin Penins.; breeds); *id. Ibis*, 1884, p. 176 (Kuril Is.); *Coues, Key N.-Amer. B.* 2nd ed. p. 738 (1884); *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1884: Labrador); *Batchelder, Auk*, 1884, p. 97 (Vermont); *Collins, t. c.* p. 237 (Grand Bank); *Seebohm, Brit. B.* iii. p. 358 (1885);

Seebohm (*Bunge*), *Ibis*, 1888, p. 349 (Gt. Liakoff Is.); *Taczan. Ornis*, 1888, p. 509 (Poland, juv.).

Lestris microrhynchos, *Brehm*, *Isis*, 1830, p. 993; *id. Vög. Deutschl.* p. 725 (1831); *id. Naum.* 1855, p. 294; *id. Vogelf.* p. 337 (1855).

Stercorarius lessoni, *Lesson*, *H. N. Mam. et Ois.* ix. p. 510 (1834).

Lestris lessonii, *Degland*, *Mém. Soc. Sc. Lille*, 1838, pte. iii. p. 120 (1839); *Schinz*, *Europ. Faun.* p. 391 (1840).

Stercorarius parasiticus, *Gray*, *List Gen.* p. 78 (1840); *id. op. cit.* ed. 1841, p. 98; *E. P. Wright*, *Ibis*, 1866, p. 218 (Prince Patrick I.; Sir L. M'Clintock); *Saunders*, *P. Z. S.* 1876, p. 330 (revision Stercorariinæ); *Dresser*, *B. Eur.* viii. p. 481, pl. 612. fig. 1 (1876); *Seebohm & H-Brown*, *Ibis*, 1876, p. 454 (Lower Petchora); *Collett*, *Nyt Mag. Naturv.* 1877, p. 206 (N. Norway); *Feilden* in *Markham's Polar Reconn.* p. 335 (1881: Novaya Zemlya, breeding); *Ridgw. Bull. U.S. Nat. Mus.* no. 21, p. 53 (1881); *W. E. Clarke*, *Faun. Yorks., Birds*, p. 84 (1881); *Nelson*, *Cruise 'Corwin,'* p. 111 (1883); *B. O. U. List Brit. B.* p. 195 (1883); *Saunders*, *4th ed. Yarr. Brit. B.* iii. p. 681 (1884); *Büchner*, *Beitr. Russ. Reiches*, (2), ii. p. 133 (1885: St. Petersburg, once); *Murdoch*, *Exped. Point Barrow*, p. 126 (1885); *Mitchell*, *B. Lancs.* p. 217 (1885); *id. op. cit.* 2nd ed. p. 256 (1892); *Giglioli*, *Avif. Ital.* p. 437 (1886); *Feilden*, *Tr. Norw. Soc.* iv. p. 351 (1887: Hudson Str.); *Salvad. Ucc. Ital.* p. 291 (1887); *Tait*, *Ibis*, 1887, p. 397 (eleven near Lisbon); *Saunders*, *Man. Brit. B.* p. 677 (1889); *Giglioli*, 1° *Resoc. Avif. Ital.* p. 651 (1889); *id.* 2° *Resoc.* p. 661 (1890: Italy to Syracuse); *Stevenson & Southw. B. Norfolk*, iii. p. 357 (1890); *Borrer*, *B. Sussex*, p. 280 (1891); *Scl. P. Z. S.* 1891, p. 486 (living in Zool. G.); *Buckl. & H-Br. Faun. Orkney Is.* p. 240 (1891); *H-Brown & Buckl. Faun. Argyll &c.* p. 196 (1892); *Saunders*, *Ibis*, 1892, p. 183 (numbers on Brit. coasts); *Macplhers. Faun. Lakeland*, p. 441 (1892); *D'Urban & Mathew*, *B. Devon*, p. 397 (1892); *Lilford*, *B. Northampt.* p. 411 (1893); *Mathew*, *B. Pembrokesh.* p. 109 (1894); *Collett*, *Nyt Mag. Naturv.* Bd. xxxv. p. 302 (1894: Norway); *Irby*, *Orn. Str Gibr.* 2nd ed. p. 303 (1895).

Lestris cephus, *Keys. & Blas. Wirb. Eur.* p. xcv and p. 240 (1840); *Bp. Cat. Ucc.* p. 80 (1842); *Schl. Vog. Nederl.* p. 590, pls. 338 & 339 (1854); *Bp. C. R.* xlii. p. 770 (1856); *Bp. Consp. Av.* ii. p. 209 (1857); *Jaub. et B.-Lapomm. Rich. Orn. Fr.* p. 388 (1859); *Schl. Dier. Nederl. Vogels*, p. 233, pl. 33. fig. 8 (1861); *Müller*, *Vidensk. Meddel.* 1862, p. 65 (1863: Færoes); *Sundev. Sv. Fogl.* pl. 51. fig. 4 (1863); *Fritsch*, *Vög. Eur.* p. 479, tav. 58. fig. 3 (1870); *Collett*, *Forh. Selsk. Christ.* 1873, p. 301 (N. Norway); *Sundev. Œfv. Ak. Förh.* 1874, p. 21 (Spitsbergen); *Jäckel u. Blas. Vög. Bayerns*, p. 354 (1891).

Cataractes longecaudatus [sic], *Macgill. Man. Brit. Orn.* pt. ii. p. 258 (1842).

Buffon's Skua, *Yarrell*, *Brit. B.* iii. p. 494 (1843).

Lestris longicaudata, *Reichenb. Syst. Nat.* tab. v. (1850); *id. Nat. Syst. Vög., Longip.* p. v. (1852); *Thomps. Nat. Hist. Irel.* iii. p. 399 (1851); *Heugl. Ibis*, 1872, p. 65 (Novaya Zemlya); *Finsch*, *Verh. z.-b. Wien*, p. 879, pl. 277 (N.W. Siberia); *Booth*, *Rough Notes*, iii. (1857).

Lestris hardyi, *Bp. C. R.* xlii. p. 770 (1856); *id. Consp. Av.* ii. p. 210 (1857: "between Philippines and Sandwich Is.")*.

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* Type in Berlin Museum examined.

Stercorarius longicaudatus, *Selys-Longch. Faun. Belge*, p. 156 (1842); *Degl. Orn. Eur.* ii. p. 298 (1849); *Newton, Arctic Manual*, p. 107 (1875); *Feilden, Ibis*, 1877, p. 409 (Smith Sound); *Bessels, Amerik. Nordpol-Exped.* p. 312 (1879, 'Polaris'); *Olphe-Gall. Orn. Eur. Occid.* fasc. x. p. 20 (1886); *Greely, Rep. Exped. Lady Frankl. Bay*, ii. p. 21 (1888).

Lestris brachyrhynchos, *Brehm, Naum.* 1855, p. 294; *id. Vogelf.* p. 337 (1855).

Stercorarius hardyi, *Coues, Pr. Philad. Acad.* 1863, p. 136 (critical).

Lestris longicauda, *Droste, Vogelw. Borkum*, p. 362 (1869); *Harting, Handb. Brit. B.* p. 78 (1872); *C. Babbington, Cat. B. Suffolk*, p. 224 (1886); *Palmén, Vega-Exped. Vetensk.* Bd. v. p. 382 (1887).

Lestris parasita, *Borggr. Vogelf. Norddeutschl.* p. 141 (1869).

Adult male in breeding-plumage. Forehead, lores, crown, and nape brownish black; lower cheeks and neck buffish yellow, deeper than in the last species; mantle ash-brown, with a greyish tinge; primaries darker and blackish towards the extremities; shafts of the two outer pairs of quills white, but those of all the rest distinctly brown; upper tail-coverts and upper portion of the central rectrices like the mantle, but the terminal portions of these, and all the other rectrices, nearly black; abdomen, flanks, and under wing ash-brown; breast white, passing into yellowish at the neck: bill horn-colour; tarsi bluish in life, drying olivaceous; toes black. Total length 23 inches; culmen 1·25; wing 11·9; tail-feathers 5·5, and the central pair sometimes 8·5 more, giving a maximum length of 14; tarsus 1·6; middle toe with claw 1·45, the claws shorter and less hooked than in the preceding species.

The *female* appears to have shorter central rectrices, but is otherwise similar externally.

Adult in winter. See remarks on p. 326.

Immature. Underparts and upper tail-coverts barred with varying degrees of ash-brown; very little yellow on the sides of the neck; otherwise similar to adults.

Young. Ash-brown above, the head darkest; the feathers of the mantle and tail-coverts merely tipped with buff, but without any rufous tint; underparts dull greyish white, barred with ash-brown.

Nestling. Greyish brown above and below, much paler and greyer than in *S. crepidatus*.

The distinctly grey tint is very characteristic of this species in all stages.

Hab. High circumpolar regions, seldom breeding south of the Arctic Circle, unless on lofty fells; in autumn and winter migrating southwards as far as the Straits of Gibraltar, as well as to about 40° N. on the Atlantic side of America, and a little further on the Pacific side; once "between the Sandwich and Philippine Islands" (*fide* Bonaparte).

a. Imm. sk. Mevagissey, Cornwall (*F. Bond*). H. Saunders Coll.

b. ♂ ad. sk. Ilfracombe, Devon, Oct. 29. W. B. Tegetmeier, Esq. [P.].

c. Juv. st.	Brighton, Sussex.	Purchased.
d. Juv. st.	Clacton-on-Sea, autumn.	T. Walker, Esq. [P.].
e. Juv. sk.	Orwell, Suffolk, Oct.	H. Saunders Coll.
f. Ad. sk.	Ripple, Worcestershire, Oct.	W. B. Tegetmeier, Esq. [P.].
g, h. Ad. sk. et juv. st.	Orkneys.	Purchased.
i–l. ♂ ♀ ad.; *m.* ♂ vix ad.; *n.* ♂ imm. sk.	Færoe Islands, May, June (*Müller*).	E. Hargitt & H. Saunders Colls.
o, p. ♂ ♀ ad. sk.	Lapland fells, from nest, June (*R. Duff*).	H. Saunders Coll.
q. Ad. sk.	Norwegian fells, June 1859 (*A. & E. Newton*).	Tweeddale Coll.
r, s. ♂ ad. sk.	Kistrand, Porsanger Fiord, N. Norway, June 20 (*H. Seebohm*).	Seebohm Coll.
t. Ad. sk.	Spitsbergen.	The Admiralty [P.].
u, v. Ad. et pull. sk.	Shubert Bay, Novaya Zemlya, Aug. 4 (*Admiral A. H. Markham*).	H. Saunders Coll.
w. ♂ ad. sk.	Stanavialachta, Petchora River, June (*Seebohm & H-Brown*).	Seebohm Coll.
x–z, a'. ♂ ♀ ad. sk.	Alexievka, Petchora R., July (*S. & H-B.*).	Seebohm & H. Saunders Colls.
b'. ♂ ad. sk.	Dvonick, Lower Petchora, July 22 (*S. & H-B.*).	Seebohm Coll.
c'. Ad. sk.	Schtschutschja Tundra, West Siberia, July.	Dr. O. Finsch [C.].
d'. ♂ ad. sk.	Amurland (*Dr. Middendorff*).	Seebohm Coll.
e', f'. Vix ad. sk.	Kurile Islands, May to July (*H. J. Snow*).	Seebohm Coll.
g'. ♂ ad. sk.	Northern mouth of Yukon, Alaska, May (*E. W. Nelson*).	Salvin-Godman Coll.
h'–m'. ♂ ♀ ad. sk.	St. Michael's, Alaska, May to Aug. (*E. W. Nelson & L. M. Turner*).	Salvin-Godman Coll.
n'. Ad. sk.	Kotzebue Sound.	Capt. Kellett & Lt. Wood, R.N. [P.].
o', p'. Ad. sk.	N.W. America (*Capt. Collinson, R.N.*).	Voy. H.M.S. 'Endeavour' [P.].
q'. Juv. sk.	82° 50′ N., Aug. 8, 1876 (*Col. H. W. Feilden*).	H.M.S. 'Alert' Exped.
r'–u'. ♂ ♀ ad. et vix ad. st.	82° 27′ N., June, July (*H. W. F.*).	H.M.S. 'Alert' Exped.
v'. Ad. sk.	Floeberg Beach, June (*H. W. F.*).	H.M.S. 'Alert' Exped.
w'–z'. ♂ ♀ ad. sk.	Discovery Bay, June, July (*H. C. Hart*).	H.M.S. 'Discovery' Exped.
a''. Ad. sk.	Repulse Bay, Melville Peninsula.	Dr. John Rae [P.].
b''. ♀ ad. sk.	Duke of York Bay, Southampton Island, 65° 30′ N., Aug. 17, 1821.	Capt. Sir E. Parry, R.N. [P.].

c''. Ad. sk.	Davis Strait? (*Dr. Robertson*).	The Admiralty [P.].
d''. Ad. sk.	Greenland Sea, Aug. (*R. May, SS. 'Arctic'*).	Col. H. W. Feilden [P.].
e''. Ad. st.	"Northern Sea."	Hudson Bay Co. [P.].
f'', *g''*. Ad. sk.	Hudson Bay Territory.	H. Saunders Coll.
h''. Juv. sk.	North Labrador, Aug. ('*Harmony*').	H. Saunders Coll.
i''. Ad. sk.	Labrador (*C. Linden*).	Salvin-Godman Coll.
k''–*l''*. Ad. et imm. sk.	Lat. 75° N., long. 10° 30′ W.	Capt. David Gray [P.].
m''–*y''*. Sterna.	Europe.	Purchased.

Order XIV. TUBINARES.

(By OSBERT SALVIN.)

The late William Alexander Forbes's memoir, entitled "Report on the Anatomy of the Petrels (*Tubinares*) collected during the Voyage of H.M.S. 'Challenger,'" * gives by far the most complete account of the anatomy of this Order, discusses the relationship of a large number of species representative of many genera, gives a good *résumé* of the literature of the subject, and the author's views as to the relationship of the Order to other Orders of the Class Aves.

As the whole of the spirit-specimens possessed by me at the time were placed at Forbes's disposal and were used in compiling his Memoir, I have little to say on this branch of the subject beyond pointing out that I have ventured to depart to some extent from Forbes's classification in the present Catalogue. In doing so, I have to a great extent returned to the older plan of keeping the Albatroses distinct from the rest of the Petrels, and in restoring Forbes's *Oceanitidæ* to the neighbourhood of the genus *Procellaria*. That such an arrangement is more convenient can hardly be doubted, and I think it can be justified.

Regarding the position of the Tubinares in the Systema Avium much difference of opinion has existed, and the final disposition of the Order is hardly yet established. Most authors placed it in juxtaposition to the *Laridæ*, but this allocation was objected to by Garrod and Forbes, who asserted that the Steganopodes and Herodiones, as understood by them, are its nearest allies, thus confirming the suggestions to that effect advanced by l'Herminier, Milne-Edwards, and Huxley.

Forbes (*op. cit.* p. 60) briefly defines the Tubinares as:—

"Holorhinal schizognathous birds with a large, broad, depressed, pointed vomer, and truncated mandible; with the anterior toes fully webbed, and the hallux either very small and reduced to one phalanx, or absent; with a tufted oil-gland and large supra-orbital glands furrowing the skull; with the external nostrils produced into tubes, usually more or less united together dorsally; with an enormous glandular proventriculus and small gizzard of unusual shape and position, and with the commencing duodenum ascending; with a completely double great pectoral muscle, and a well-developed *pectoralis tertius*; with the *femoro-caudal* and *semi-tendinosus* muscles always present, and the *ambiens* and *accessory femoro-caudal* only exceptionally absent."

* Report of the Scientific Results of the Voyage of H.M.S. 'Challenger,' Zoology, Vol. iv. Part xi. (1882).

In Dr. Fürbringer's classification ('Untersuch. zur Morph. und Syst. der Vögel,' ii. p. 1588 [1888]) the Procellariiformes (= Tubinares) follow the Ciconiiformes (Phœnicopteri, Pelargo-herodii, Accipitres, Steganopodes), and the Impennes, followed by the Charadriiformes (*Laridæ*, &c.), come next in succession.

Mr. Seebohm ('Classification of Birds,' p. 34 [1890]) defines the Tubinares as follows:—

"External nostrils produced into tubes. Nasals holorhinal. Dorsal vertebræ heterocœlous. Hallux absent or reduced to one phalanx, the other toes directed forwards. Young fed by the parents for some time in the nest. Spinal feather-tract well defined on the neck. Oil-gland tufted."

He places the Order between his Galliformes and Impennes, not far from the Gulls, but some way from the Steganopodes and Herodiones.

The Procellariiformes (=Tubinares) in Dr. Sharpe's arrangement ('Review of Recent Attempts to Classify Birds,' p. 71 [1891]) are placed between the Sphenisciformes and Alciformes near the Lariformes, but far from the Pelargiformes and Pelecaniformes. The characters he gives are those of Mr. Seebohm.

Dr. Gadow (P. Z. S. 1892, pp. 239, 240), in his comprehensive paper on the Classification of Birds, places his Procellariiformes (=Tubinares) between his Sphenisciformes and Ardeiformes, the latter a group including Steganopodes, Herodii, and Pelargi. He thus agrees with Forbes as to the position of the Petrels as regards their neighbours on one side. He defines the Procellariiformes as—

"Cosmopolitan. Marine. Nidicolous. Zoophagous. Nestlings downy; downs complex. Oil-gland tufted. Aquinto-cubital. Neck with lateral apteria. Schizognathous. Rhamphotheca compound. Large supraorbital glands. Nares impervious, tubular. Hallux small or rudimentary. Front toes webbed. Hypotarsus complex, or with several grooves. Coraco-humeral groove shallow. Ectepicondylar process large. Tracheo-bronchial muscles attached to 7th or 5th bronchial rings. Tongue mostly rudimentary."

The Charadriiformes, including the Gaviæ, he places far from the Petrels, and next the Columbiformes on the one side and the Gruiformes on the other.

Fossil remains of Tubinares have been discovered in several parts of the world, but mostly in superficial deposits. *Diomedea anglica*, however, is known from the Red Crag (Upper Pliocene) of Norfolk. See Lydekker, Cat. Fossil Birds in Brit. Mus. p. 189.

The external structure of the bill is very characteristic of the Order, so much so that a Petrel can at once be recognized by this feature. Dr. Coues describes the bill (Key to N. Am. Birds, revised edition, p. 773) as epignathous, its covering discontinuous, consisting of several horny pieces separated by deep grooves.

In size the members of the Order range from that of a large Swallow (*Hirundo*) to an Albatros, which has the widest stretch of wing of any existing bird.

The majority of the species lay their single egg in holes burrowed in the ground, often on the lofty summits of oceanic islands. Others make a nest in the open.

The egg of each species is wholly white, or with the addition of an indistinct zone of small reddish freckles near the end.

The young are helpless till fully grown, and are covered with thick down, amongst which the feathers gradually appear.

The sexes are alike in the colour of their plumage. In some species considerable variation of colour exists in different individuals without apparent reference to age or sex. In a few species, such as the true *Diomedea exulans* and *D. albatrus*, the young are very differently coloured from the adult.

Synopsis of the Families.

a. Nostrils united externally above the culmen; margin of the sternum even; no pterygoid processes; manubrium of furcula long; coracoids long, comparatively narrow across the base and slightly divergent; 2nd primary the longest ..... 1. **Procellariidæ,** [p. 343.

b. Nostrils united externally, or nearly so, above the culmen; margin of the sternum uneven; distinct pterygoid processes; manubrium of furcula very short; coracoids short, wide at the base and divergent; 1st primary the longest, or not shorter than the 2nd .... 2. **Puffinidæ,** [p. 368.

c. Nostrils distinct, opening upwards on either side of the middle of the base of the culmen; margin of the sternum even, the sternum itself considerably longer than wide; distinct pterygoid processes; manubrium of furcula very short; coracoids long, narrow at the base and nearly parallel; 2nd primary slightly the longest ..... 3. **Pelecanoididæ,** [p. 437.

d. Nostrils lateral, separated by the wide culmen, each in a separate horny sheath opening forwards; margin of the sternum uneven, the sternum itself short compared with its width; no pterygoid processes; manubrium of furcula very short; coracoids short, very wide at the base and widely divergent; 1st primary the longest ..... 4. **Diomedeidæ,** [p. 440.

Family I. PROCELLARIIDÆ.

Key to the Subfamilies.

a. Leg-bones shorter than the wing-bones; tarsus never twice as long as the femur; basal phalanx of the middle toe shorter than the next two joints; keel of the sternum entirely ossified; tarsi covered in front with hexagonal scutes; claws sharp and compressed; outer toe shorter than the middle toe; secondaries at least 13.. 1. *PROCELLARIINÆ*, [p. 343.

b. Leg-bones longer than the wing-bones; tarsus at least twice as long as the femur; basal phalanx of the middle toe as long as or longer than the next two joints; keel of the sternum with a large fenestra; tarsi usually covered in front with a single shield, or with transverse short scutes; claws usually very flat; outer and middle toes subequal; secondaries 10 ..... 2. *OCEANITINÆ*, [p. 358.

Subfamily I. PROCELLARIINÆ.

Key to the Genera.

a. Tarsus longer than the middle toe and claw; tail not distinctly forked.

a'. Tail rounded or nearly even ..... 1. PROCELLARIA, p. 343.

b'. Tail cuneate ..... 2. HALOCYPTENA, p. 346.

b. Tarsus not distinctly longer than the middle toe and claw; tail distinctly forked .... 3. OCEANODROMA, p. 347.

1. PROCELLARIA.

	Type.
Procellaria, *Linn. Syst. Nat.* i. p. 212 (1766); *Coues, Pr. Ac. Phil.* 1864, p. 79	P. pelagica.
Hydrobates, *Boie, Isis*, 1822, p. 562	P. pelagica.
Thalassidroma, *Vigors, Zool. Journ.* ii. p. 405 (1825) ..	P. pelagica.

Range. Atlantic Ocean (chiefly north of the Equator), and Pacific Ocean in the neighbourhood of the Galapagos Islands.

Key to the Species.

a. Tips of the longer upper tail-coverts sooty-black.... *pelagica*, p. 343.

b. Upper tail-coverts wholly white..... *tethys*, p. 346.

1. Procellaria pelagica.

Peterel, *Dampier, Voy.* iii. p. 97; *Albin, N. H. Birds*, iii. p. 87, pl. 92.

Storm-finck or Pittrel, *Catesb. Nat. Hist. Carol.* ii. p. 14, pl. 14 (1743); *Penn. Brit. Zool.* ii. p. 434, pl. 91 (1768).

Little Peteril, *Edw. Nat. Hist. Birds*, p. 90, pl. 90. fig. 1 (1747).

Le Pétrel, *Briss. Orn.* vi. p. 140, pl. 13. fig. 1 (1760).

L'Oiseau de Tempête, *Buff. Hist. Nat. Ois.* x. p. 164 (1786); *D'Aub. Pl. Enl.* x. pl. 993.

Stormy Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 411 (1785); *id. Suppl.* i. p. 269 (1787); *id. Gen. Hist.* x. p. 189 (1824); *Penn. Arct. Zool.* ii. p. 536 (1785); *id. Brit. Zool.* ii. p. 208 (1812); *Bewick, Hist. Brit. Birds*, ii. p. 249 (1804); *Nutt. Man. Water-Birds N. Am.* p. 327 (1834).

Procellaria pelagica, *Linn. Syst. Nat.* i. p. 212 (1766); *Gm. Syst. Nat.* i. p. 561 (1788); *Lath. Ind. Orn.* ii. p. 826 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 416 (1817); *id. Enc. Méth.* p. 77 (1823); *Temm. Man.* ii. p. 810 (1820); *F. Boie, Reise durch Norw.* p. 153 (1822); *Bp. Journ. Ac. Phil.* iii. p. 227, pl. 8 (1824); *id. Consp. Av.* ii. p. 196 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Steph. in Shaw's Gen. Zool.* xiii. p. 220 (1826); *Werner, Atlas, Palmip.* pl. 26 (1827); *Lesson, Man. d'Orn.* ii. p. 348 (1828); *Baikie & Heddle, Hist. Nat. Orc.* p. 96 (1848); *Jacq. & Puch. Voy. Pôle Sud, Zool.* iii. pp. 140, 142 (1853); *Schl. Mus. P.-B.*, vi. Procell. p. 7 (1863); *Coues, Pr. Ac. Philad.* 1864, pp. 80, 90; *id. op. cit.* 1866, p. 192; *id. Check-list N. Am. Birds*, p. 126 (1882); *id. Key N. Am. Birds*, ed. 2, p. 781 (1884); *Loche, Expl. Sci. Algér., Ois.* ii. p. 171 (1867); *Chapman, Trav. in S. Afr.* ii. App. p. 425 (1868); *Elwes, Ibis*, 1869, p. 28; *v. Droste, J. f. Orn.* 1869, p. 381; *Elwes & Buckl. Ibis*, 1870, p. 336; *Fritsch, Vög. Eur.* pl. 61. fig. 4 (1870); *Gigl. Faun. Vert. Oceano*, p. 36 (1870); *id. Viagg. 'Magenta,'* pp. 25, 977, 978 (1875); *id. Ibis*, 1881, p. 217; *Salvad. Faun. Ital., Ucc.* p. 300 (1871); *Gray, Hand-l.* iii. p. 103 (1871); *Gurney in Anderss. Birds Damara-L.* p. 351 (1872); *Sharpe, Ibis*, 1872, p. 74; *Heugl. Orn. N.O.-Afr.* ii. p. 1373 (1873); *Ussher, Ibis*, 1874, p. 75; *B. O. U. List Brit. Birds*, p. 196 (1882); *Salv. Cat. Strickl. Coll.* p. 628 (1882); *Stearns, New Engl. Bird-Life*, ii. p. 381 (1883); *Saund. ed. Yarr. Brit. Birds*, iv. p. 42 (1884); *id. Ibis*, 1884, p. 392; *id. Man. Brit. Birds*, p. 727 (1889); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 403 (1884); *Seeb. Hist. Brit. Birds*, iii. p. 438, pl. 56 (1885); *Turner, Pr. U. S. Nat. Mus.* viii. p. 253 (1885); *A. O. U. Check-l. N. Am. Birds*, p. 104 (1886); *Booth, Rough Notes*, iii. pl. 49 (1887); *Sharpe, ed. Layard's Birds S. Afr.* p. 765 (1887); *Ridgw. Man. N. Am. Birds*, p. 70 (1887); *Stevens. Birds Norf.* iii. p. 371 (1890); *Borrer, Birds Sussex*, p. 286 (1891); *Turle, Ibis*, 1891, p. 11; *Buckl. & Harvie-Brown, Vert. Faun. Orkn.* p. 241 (1891); *Evans, Ibis*, 1891, p. 82; *id. op. cit.* 1892, p. 57; *Meade-Waldo, Ibis*, 1893, p. 206.

Procellaria pelagina, *Kuhl, Beitr.* p. 139 (1820).

Hydrobates pelagicus, *Boie, Isis*, 1822, p. 562; *C. L. Brehm, Vög. Deutschl.* p. 804 (1831).

Thalassidroma pelagica, *Vigors, Zool. Journ.* ii. p. 405 (1825); *Jardine's ed. Wils. Am. Orn.* ii. p. 381, pl. 60. fig. 1 (1832); *Schinz, Naturg. Vög.* p. 399, pl. 136 (1832); *Aud. Orn. Biogr.* iv. p. 310 (1838); *id. Birds Am.* pl. 340; *id. op. cit.* 8vo ed. vii. p. 228, pl. 461 (1844); *Bp. Comp. List*, p. 64 (1838); *Gould, Birds Eur.* v. pl. 448 (1837); *id. Birds Gt. Brit.* v. pl. 86 (1873); *Keys. & Blas. Wirb. Eur.* p. xciii (1840); *Naum. Vög. Deutschl.* x. pl. 275. fig. 1 (1840); *Crespon, Orn. Gard*, p. 499 (1840); *Selys, Faun. Belge*, p. 157 (1842); *Gray, List Anseres Brit. Mus.* p. 160 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *Hewits. Eggs Brit. Birds*, ii. p. 460, pl. 131. fig. 3 (1844); *Sehl. Rev. Crit. Ois. Eur.* p. cxxxiii (1844); *id. Vog. Nederl.* i. p. 582, pl. 330 (1854); *id. Dier. Nederl. Vog.* pl. 35. fig. 2 (1861); *Thompson, Nat. Hist. Irel., Birds*, iii. p. 418 (1851); *Kjærb. Orn. Dan.* pl. 51 A. fig. 4 (1851); *Reich. Av. Syst. Nat., Natatores*, pl. 16. figs. 779, 780, pl. 19. figs. 2725–26;

Macgill. Hist. Brit. Birds, v. p. 460 (1852); *Brehm, Naum.* 1855, p. 296; *id. Vogelf.* p. 353 (1855); *Jaub. & Barth.-Lapomm. Rich. Orn. Fr.* p. 383 (1858); *Lawr. Birds N. Am.* p. 831 (1860); *Powys, Ibis*, 1860, p. 357; *Wright, Ibis*, 1863, p. 438; *id. op. cit.* 1864, p. 154; *id. op. cit.* 1869, p. 251; *Newton, in Baring Gould's Iceland*, p. 419 (1863); *D. Walker, P. Z. S.* 1863, p. 379; *Gray, Cat. Brit. Birds*, p. 224 (1863); *Salvad. Atti Soc. Ital. Sc. Nat.* vi. p. 151 (1864); *More, Ibis*, 1865, p. 458; *Hutton, Ibis*, 1867, p. 190; *Degl. & Gerbe, Orn. Eur.* ii. p. 364 (1867); *Turnbull, Birds of E. Lothian*, p. 35 (1867); *Collett, Norges Fugle*, p. 76 (1868); *Sperling, Ibis*, 1868, p. 293; *Smith, Ibis*, 1868, p. 459; *Borggr. Vogelf.* p. 240 (1869); *Saund. Ibis*, 1869, p. 171; *id. op. cit.* 1871, p. 401; *Doderl. Avif. Sicil.* p. 229 (1869); *F. Boie, J. f. Orn.* 1869, p. 98; *Tacz. J. f. Orn.* 1870, p. 55; *Finsch & Hartl. Vög. Ostafr.* p. 814 (1870); *R. Gray, Birds W. Scotland*, p. 507 (1871); *Brooke, Ibis*, 1873, p. 348; *Dresser, Birds Eur.* viii. p. 491 (1874); *Irby, Birds Gibraltar*, p. 217 (1875); *id. op. cit.* ed. 2, p. 309 (1895); *Danf. & H.-Brown, Ibis*, 1875, p. 433; *Rowley, Orn. Misc.* i. p. 133 (1876), ii. p. 110 (1877); *Maynard, Birds E. N. Am.* p. 491 (1879); *Coppinger, Cruise of the 'Alert,'* pp. 13, 17 (1882); *Chapman, Ibis*, 1884, p. 98; *Dixon, Ibis*, 1885, p. 95; *Arévalo, Aves de Esp.* p. 407 (1887); *A. Koenig, J. f. Orn.* 1890, p. 464; *Lilford, Birds Northamptonshire*, p. 418 (1893).

Hydrobates faeroensis, *C. L. Brehm, Vög. Deutschl.* p. 803 (1831).

Thalassidroma melitensis, *Schembri, Orn. del Gruppo di Malta*, p. 118, pl. (1843): *Strickl. Ann. & Mag. N. H.* xiv. p. 348 (1844); *Gray, Gen. Birds*, iii. p. 648 (1844); *Reich. Av. Syst. Nat., Natatores*, pl. 16. fig. 778.

Procellaria lugubris, *Natterer, Acta Ital. Mediol.* 1844 (*fide Bp.*); *Bp. Consp. Av.* ii. p. 197 (1855); *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, p. 80.

Procellaria minor, *Kjærb. Orn. Dan., Suppl.* pl. 7. fig. 2 (1854).

Thalassidroma minor, *L. Brehm, Naumannia*, 1855, p. 296.

Thalassidroma tenuirostris et albifasciata, *L. Brehm, Naumannia*, 1855, p. 296.

Procellaria melitensis, *Coues, Pr. Ac. Phil.* 1864, pp. 81, 90; *Wright, Ibis*, 1869, p. 251.

The Storm Petrel, *Yarrell, Brit. Birds*, iii. p. 524 (1843).

Adult male. Sooty-black, rather paler and browner on the forehead and under surface; margin of the greater wing-coverts greyish white; rump and upper tail-coverts (except their tips) white; concealed portion of the under tail-coverts white; rectrices sooty-black, white at the base, the shafts black; middle under wing-coverts white: bill, tarsi, and toes black. Total length about 6·5 inches, wing 4·7, tail 2·2, bill from gape 0·62, tarsus 0·9, middle toe 0·82, outer toe 0·88, inner toe 0·65.

Female. Similar to the male.

Young. Entirely covered with uniform sooty down, paler and greyer than the plumage of the adult.

Hab. North Atlantic Ocean southwards to West Africa; Mediterranean Sea.

a, b. Ad. sk.	Orkney Islands (*J. Dunn*).	Salvin-Godman Coll.
c. Ad. sk.	Stromness (*J. Dunn*).	H. Seebohm, Esq. [P.].
d, e. Ad. st.	Shetland.	Purchased.

f, g. Pull. st.	Great Britain.	Purchased.
h, i. Pull. sk.	Scotland (*J. Dunn*).	H.Seebohm,Esq.[P.].
j. Pull. sk.	Orkney Islands.	Baron H. von Hügel [P.].
k, l. ♂ ad. sk.	Lincolnshire coast, Nov. 10.	H. Seebohm, Esq. [P.].
m. Ad. st.	English Channel.	J. Gould, Esq. [P.].
n. Ad. st.	Torquay, Devonshire.	C. Coningham, Esq. [P.].
o. ♀ ad. sk.	North Atlantic, lat. 46° 20′ N., long. 9° 58′ W., June 15, 1852 (*F. M. Rayner*).	Voy.H.M.S.'Herald.'
p. Ad. sk.	Malta.	H.E.Strickland,Esq. [P.].
q. ♂ ad. sk.	Tunis.	L. Fraser [C.].
r. Ad. sk.	Fantee, W. Africa (*Ussher*).	Shelley Coll.
s. Pull. sk.	[Europe.]	Purchased.
t. Ad. sk.	[South Africa.]	Sir Andrew Smith [P.].
u. Pull. sk.		Gould Coll.
v–x. Skeletons.		
y–b′. Sterna.		

2. Procellaria tethys.

Procellaria tethys, *Bp. in J. f. Orn.* 1853, p. 47; *id. Compt. Rend.* xxxviii. p. 662 (1854); *id. op. cit.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 197 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 80, 90; *Salv. Trans. Zool. Soc.* ix. p. 507, pl. 88. fig. 2 (1876); *Ridgw. Man. N. Am. Birds*, p. 70 (1887); *Towns. Pr. U.S. Nat. Mus.* xiii. p. 142 (1890).

Procellaria pelagica, *Neboux apud Bp.*

Adult. Similar to *P. pelagica* but a little larger; the upper tail-coverts wholly white, the greater wing-coverts paler sooty but not margined with greyish white, the under wing-coverts wholly sooty, and the tail slightly forked. Total length about 6 inches, wing 5·4; tail, outer rectrices 2·3, middle rectrices 2·15; bill 0·65; tarsi and toes deficient.

Hab. Galapagos Islands and West coast of Central America.

a. Ad. sk. Purchased.

2. HALOCYPTENA.

Type.

Halocyptena, *Coues, Pr. Ac. Phil.* 1864, p. 78 ..... H. microsoma.

Range. West coast of America from the Gulf of California to the Bay of Panama.

1. Halocyptena microsoma.

Halocyptena microsoma, *Coues. Pr. Ac. Phil.* 1864, pp. 79, 90; *id. op. cit.* 1866, p. 191; *id. Key N. Am. Birds*, p. 328 (1872), ed. 2, p. 780 (1884); *id. Check-list N. Am. Birds*, p. 126 (1882); *Elliot, Birds of N. Am.* ii. pl. 61. fig. 2 (1867); *Forbes, Voy. Chall., Zool.* iv. pt. xi. p. 55 (1882); *Ridgw. Pr. U.S. Nat. Mus.* v. p. 534 (1883); *id. Man. N. Am. Birds*, p. 69 (1887); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 402 (1884); *A. O. U.*

Check-l. N. Am. Birds, p. 104 (1886); *Towns. Pr. U.S. Nat. Mus.* xiii. p. 141 (1890).

Adult female. Dark sooty-black, slightly glossy on the upper surface, forehead and under surface browner: greater wing-coverts paler; under wing-coverts uniform sooty: bill, legs, and toes black. Total length about 5·5 inches, wing 4·65; tail, central rectrices 2·1, lateral 1·6; bill 0·56, tarsus 0·87, middle toe 0·77, outer toe 0·73, inner toe 0·6.

Hab. West coast of America from Lower California to Panama.

a. ♀ ad. sk. Mazatlan, W. Mexico (*A. Forrer*). Salvin-Godman Coll.

3. OCEANODROMA.

Type.

Oceanodroma, *Reich. Av. Syst. Nat.* p. iv (1852);
Coues, Proc. Ac. Phil. 1864, p. 74 ..... O. furcata.
Cymochorea, *Coues, Pr. Ac. Phil.* 1864, p. 75..... O. leucorrhoa.

Range. Seas chiefly of the Northern Hemisphere, but southwards to the coast of Peru and the island of St. Helena.

Key to the Species.

a. Plumage generally sooty-black.
  a'. Upper tail-coverts more or less white *.
    a''. Base of the lateral rectrices black: longest upper tail-coverts white, narrowly tipped with sooty ..... *leucorrhoa*, p. 348.
    b''. Base of the lateral rectrices white; longest upper tail-coverts broadly sooty at the tip. *cryptoleucura*, [p. 350.
  b'. Upper tail-coverts the same colour as the back, not white.
    c''. Under wing-coverts uniform with the rest of the under surface:
      a'''. Largest: wing 7·5 inches, tail 4·45 .... *fuliginosa*, p. 352.
      b'''. Smaller: wing 7 inches or less, tail less than 4.
        a^1. Bill stouter, less elongated; plumage nearly uniformly dark without plumbeous tint ..... *melania*, p. 353.
        b^1. Bill slender, more elongated; mantle and head more or less tinged with plumbeous.
          a^5. Tarsus shorter (1 inch); head and mantle distinctly plumbeous ..... *markhami*, p. 354.
          b^5. Tarsus longer (1·1 inch); head and mantle darker ..... *tristrami*, p. 354.
      c'''. Smallest: wing about 6 inches ..... *monorhis*, p. 356.
    d''. Under wing-coverts much paler than the rest of the under surface ..... *homochroa*, p. 355.
b. Under surface white; breast with sooty collar .. *hornbyi*, p. 356.
c. Plumage generally pale ashy..... *furcata*, p. 357.

* *O. macrodactyla* and *O. socorroensis* apparently belong to this division; but as I have no specimens of either for comparison, I am unable to assign them to their exact position in the key.

1. Oceanodroma leucorrhoa.

Procellaria pelagica, *Pallas (nec Linn.)*, *Zoogr. Ross.-As.* ii. p. 316 (1811), *fide Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 97 (1885).

Procellaria leucorrhoa, *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 422 (1817); *Schl. Mus. P.-B.*, vi. Procell. p. 3 (1863); *Gray, Hand-l.* iii. p. 104 (1871); *Cordeaux, Ibis*, 1875, p. 188; *Reinh. Vidensk. Medd. Kjöb.* 1881, p. 187; *Blakist. & Pryer, Trans. As. Soc. Jap.* x. p. 105 (1882); *B. O. U. List Brit. Birds*, p. 196 (1883); *Blakist. Amend. List Birds Japan*, pp. 21, 35 (1884); *Seeb. Ibis*, 1884, p. 33; *Reid, Ibis*, 1885, p. 254; *Tait, Ibis*, 1887, p. 397; *Stevens. Birds Norf.* iii. p. 369 (1890); *Turle, Ibis*, 1891, p. 11; *Buckl. & Harvie-Brown, Vert. Faun. Orkn.* p. 242 (1891); *Meade-Waldo, Ibis*, 1893, p. 206; *Irby, Birds Gibr.* ed. 2, p. 310 (1895).

Procellaria leachi, *Temm. Man. d'Orn.* ii. p. 812 (1820); *Kuhl. Beitr.* p. 137 (1820); *Werner, Atlas, Palmip.* pl. 27; *Bp. Journ. Ac. Phil.* iii. p. 229, pl. 9 (1824); *Steph. in Shaw's Gen. Zool.* xiii. p. 219, pl. 25 (1826); *Rowley, Ibis*, 1860, p. 200; *Elwes, Ibis*, 1869, p. 28; *Fritsch, Vög. Eur.* pl. 61. fig. 5 (1870); *v. Droste, J.f. Orn.* 1870, p. 381; *Seeb. Hist. Brit. Birds*, iii. p. 443, pl. 56 (1885); *id. Birds Jap. Emp.* p. 270 (1890).

Procellaria bullocki, *Flem. Brit. Anim.* p. 136 (1828); *Rowley, Orn. Misc.* ii. p. 101, pls. 48, 49 (1876); *Borrer, Birds Sussex*, p. 284 (1891).

Thalassidroma leachii, *Aud. Orn. Biogr.* iii. p. 434, pl. 260 (1835); *id. Birds N. Am.* vii. p. 219, pl. 459; *Gould, Birds Eur.* v. pl. 447 (1837); *id. Birds Great Brit.* v. pl. 85 (1873); *Bp. Comp. List*, p. 64 (1838); *id. Consp. Av.* ii. p. 195 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Keys. & Blas. Wirb. Eur.* pp. xciii, 238 (1840); *Naum. Vög. Deutschl.* x. pl. 275. fig. 2 (1840); *Selys, Faun. Belge*, p. 157 (1842); *Schl. Rev. Crit. Ois. Eur.* p. cxxxiii (1844); *id. Vog. Nederl.* i. pl. 583 (1854); *id. Dier. Nederl. Vog.* pl. 33. fig. 3 (1861); *Gray, List Anseres Brit. Mus.* p. 160 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *id. Cat. Brit. Birds*, p. 225 (1863); *Kjærb. Orn. Dan.* pl. 54. fig. 9 (1851); *Reich. Av. Syst. Nat., Natatores*, pl. 16. figs. 781–2, pl. 19. figs. 2721–22 (1850); *Thompson, Nat. Hist. Irel., Birds*, iii. p. 415 (1851); *Macgill. Hist. Brit. Birds*, v. p. 451 (1852); *Brehm, Naum.* 1855, p. 296; *id. Vogelf.* p. 354; *Hewits. Eggs Brit. Birds*, ii. p. 520, pl. 145. fig. 2 (1856); *Bp. Compt. Rend.* xlii. p. 769 (1856); *Jaub. & Barth.-Lapomm. Rich. Orn.* p. 384 (1858); *Lawr. Birds N. Am.* p. 830 (1860); *Blas. & Bald., Naum. Vög. Deutschl.* xiii. pt. 2, p. 277 (1860); *Reinh. Ibis*, 1861, pp. 3, 16; *Schrenck, Reise Amurl.* p. 515; *Swinh. P. Z. S.* 1863, p. 330; *More, Ibis*, 1865, p. 458; *Hutton, Ibis*, 1867, p. 190; *Baird, Ibis*, 1867, p. 292; *A. C. Smith, Ibis*, 1868, p. 458; *Dall, Trans. Chic. Ac. Sc.* i. p. 303 (1869); *Borggr. Vogelf.* p. 140 (1869); *Gray, Birds West. Scotl.* p. 505 (1871); *Coues, Key N. Am. Birds*, ed. 1, p. 327 (1872); *Dall, Notes Avif. Aleut. Is.* p. 8 (1874); *Samuels, Our N. and E. Birds*, p. 552 (1883); *Lilford, Birds Northamptonshire*, p. 416 (1893).

Thalassidroma scapulata, *Kittl. Denkwürd.* ii. p. 191 (1858).

Cymochorea leucorrhoa, *Coues, Pr. Ac. Phil.* 1864, pp. 75, 90; *id. Key N. Am. Birds*, p. 329 (1872), ed. 2, p. 781 (1884); *id. Check-list N. Am. Birds*, p. 126 (1882); *Gigl. Faun. Vert. Oceano*, p. 37 (1870); *Brewster, Bull. Nutt. Orn. Club*, vi. p. 125; *Merrill, Bull. Nutt. Orn. Club*, vi. p. 249; *Salv. Cat. Strickl. Coll.* p. 628 (1882); *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1883); *id. New Engl. Bird-Life*, ii. p. 382 (1883); *Nelson, Cruise 'Corwin,'* p. 113

(1883); *Saund. ed. Yarrell's Brit. Birds*, iv. p. 392 (1884); *id. Ibis*, 1884, p. 392; *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 407 (1884); *Merriam, Bull. U.S. Nat. Mus.* no. 29, p. 283 (1885); *Turner, Auk*, ii. p. 158 (1885); *id. Pr. U.S. Nat. Mus.* viii. p. 253 (1885); *Ussher, Zool.* 1886, p. 367; *A. O. U. Check-l. N. Am. Birds*, p. 104 (1886).

Thalassidroma leucorrhoa, *Degl. & Gerbe, Ois. Eur.* ii. p. 387 (1867); *Doderl. Avif. Sicil.* p. 230 (1869); *Dresser, Birds Eur.* viii. p. 497, pl. 613 (1874); *Irby, Birds Gibr.* p. 217 (1875); *Maynard, Birds E. N. Am.* p. 490 (1879); *Swinburne, Pr. R. Phys. Soc. Edinb.* viii. 1883, p. 64; *Dixon, Ibis*, 1885, pp. 95, 361; *Arévalo, Aves de Esp.* p. 409 (1887).

Oceanodroma leucorrhoa, *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 97 (1885); *id. Pr. U.S. Nat. Mus.* x. p. 125 (1887); *Blakist. Pr. U.S. Nat. Mus.* ix. p. 655 (1886); *Ridgw. Man. N. Am. Birds*, p. 71 (1887); *Saund. Man. Brit. Birds*, p. 725 (1889); *Dutcher, Auk*, vi. p. 131 (1889); *Morris, Auk*, vi. p. 340; *Chamberlain, Auk*, vi. p. 215; *Palmer, Pr. U.S. Nat. Mus.* xiii. p. 257 (1890); *Tacz. Mém. Ac. Imp. St. Pétersb.* xxxix. p. 1066 (1893).

Fork-tailed Stormy Petrel, *Nutt. Man. Water-Birds*, p. 326 (1834).

The Fork-tailed Petrel, *Yarrell, Brit. Birds*, iii. p. 520 (1843).

Adult male. Sooty-black; head and throat slightly plumbeous, the latter as well as the forehead a little paler; greater and median wing-coverts pale sooty-brown; longer tail-coverts white, with dark shafts and a narrow dark edge, the shorter coverts sooty with white margin; under surface sooty-brown; under tail-coverts whitish at the base; rectrices sooty, with the bases of the shafts white: bill and feet black. Total length about 8·5 inches, wing 6; tail, central rectrices 2·4, lateral 3·3; tarsus 0·92, middle toe 0·98.

Female. Similar to the male.

Young. Covered with sooty down.

The specimen from the Kurile Islands has some white at the base of the outer rectrices and along the outer web of the outermost feather, but it does not differ otherwise from the North-Atlantic bird.

Hab. Seas of the Northern Hemisphere.

a. ♂ ad.; *b.* ♀ ad. sk.	Dun, St. Kilda, June 10, 1884 (*C. Dixon*).	Seebohm Coll.
c. Ad. st.	St. Kilda.	Old Coll.
d. ♂ ad. sk.	Lincolnshire coast, Nov. 10.	Seebohm Coll.
e. ♀ ad. sk.	Thames Valley, Crossness.	H. Whitely [C.].
f–j. Ad. sk.	Grand Menan, June (*H. Herrick*).	Salvin-Godman Coll.
k. Ad. sk.	New Brunswick.	Salvin-Godman Coll.
l. ♂ ad. sk.	Green I., New Brunswick (*J. H. Batty*).	Salvin-Godman Coll.
m–o. Ad. sk.	Bay of Fundy, N.B. (*G. A. Boardman*).	Salvin-Godman Coll.
p. Ad. sk.	Nova Scotia.	Old Coll.
q. Ad. sk.	Newfoundland (*C. H. Merriam*).	Salvin-Godman Coll.
r. Pull. sk.	Casco Bay, Maine (*W. Brewster*).	Salvin-Godman Coll.
s. ♀ ad. sk.	Bermuda, May (*C. H. Merriam*).	Salvin-Godman Coll.

t–v. ♂ ad.; *w.* Ad. sk.	Atlantic Ocean, lat. 5° N., long. 22° 20′ W., Jan. 7 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
x. ♀ ad. sk.	Atlantic Ocean, lat. 2° N., long. 21° 50′ W., Jan. 12 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
y. ♂ ad. sk.	Atlantic Ocean, lat. 0° 12′ N., long. 21° W., Mar. 23.	Gould Coll.
z. ♀ ad. sk.	Hanusake, Japan, May (*Blakiston*).	Seebohm Coll.
a′. ♀ ad. sk.	Shikotan, E. Yeso, Japan, June 23.	T. Blakiston, Esq. [P.].
b′. Ad. sk.	Kurile Is. (*Snow*).	Seebohm Coll.
c′. Ad. sk.		Old Coll.
d′. Ad. st.	South Africa.	Sir A. Smith [P.].

2. Oceanodroma cryptoleucura.

Procellaria sp., *Melliss, Ibis*, 1870, p. 105.

Cymochorea cryptoleucura, *Ridgw. Pr. U.S. Nat. Mus.* iv. p. 337 (1882).

Oceanodroma cryptoleucura, *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 406 (1884); *Ridgw. Man. N. Am. Birds*, p. 71 (1887); *Stejn. Pr. U.S. Nat. Mus.* x. p. 78 (1887); *Wilson, Aves Hawaiienses*, part iv. (1893).

Adult. Similar to *O. leucorrhoa*, but with the longer upper tail-coverts broadly tipped with black; the rectrices, except the central pair, white at their base for about a fourth of their length; tail less deeply forked. Total length about 7 inches, wing 6·1; tail, central rectrices 2·75, lateral rectrices 3·1; bill 0·8, tarsus 0·82, middle toe 0·9, outer toe a trifle shorter, inner toe 0·7.

"Four adult males collected in the Galapagos Archipelago by Mr. C. H. Townsend seem to be identical with the Hawaiian examples collected by Mr. V. Knudsen, though slight differences are apparently observable. They are perceptibly darker in colour, though this may be due to their fresher condition; the black tips to the longer upper tail-coverts average rather narrower; the bill is a little thicker, and the tarsi and toes quite decidedly shorter (·83 and ·82 respectively against ·89 and ·85 in Hawaiian specimens). It is possible, however, these slight differences would disappear if a larger number of specimens were compared." (*Ridgway in litt.*)

Hab. Hawaiian Islands; Galapagos Islands; S. Atlantic Ocean, and as far north as Madeira.

a. Ad. sk.	Kauai, Hawaiian Is. (*Knudsen*).	Prof. Collett [P.].
b. ♂ ad. sk.	Porto Santo I., Feb. 12, 1895.	W. R. Ogilvie-Grant, Esq. [P.].
c. ♀ ad. sk.	Great Salvage I., April 4, 1895.	W. R. Ogilvie-Grant, Esq. [P.].
d, e. ♂ ♀ ad. sk.	Porto Santo, June 1895.	E. Schmitz [C.].
f. ♂ ad. sk.	Funchal, Aug. 17, 1894.	E. Schmitz [C.].
g. ♂; *h.* ♀ ad. sk.	Desertas, June 22, 1895.	E. Schmitz [C.].
i. Pull. sk.	Desertas, Aug. 22, 1895.	E. Schmitz [C.].
j, k. Ad. sk.	St. Helena (*Hudson Janish*).	Salvin-Godman Coll.
l. Ad. sk.	St. Helena (*Melliss*).	H. Saunders, Esq. [P.].

m. Ad. sk.	[Australia.]	Sharpe Coll.
n. Sternum.	Desertas.	W. R. Ogilvie-Grant, Esq. [P.].

3. Oceanodroma macrodactyla.

Oceanodroma leucorrhoa, *W. E. Bryant, Bull. Calif. Ac. Sc.* ii. p. 276.

Oceanodroma leucorrhoa macrodactyla, *W. E. Bryant, Bull. Calif. Ac. Sc.* ii. p. 450.

Oceanodroma macrodactyla, *A.O.U. Check-list N. Am. Birds*, 1889, p. 12, no. 106.

"*Sp. char.* Similar to *O. leucorrhoa* (Vieill.), but with much longer and more deeply forked tail, larger feet, shorter bill, and very broad dusky tips to the upper tail-coverts.

"*Adult male* (No. 2566, coll. Walter E. Bryant, Guadalupe I., March 1886: *W. E. B.*). Head, neck, and back dark sooty greyish, paler on anterior portion of head, the forehead tinged with brown, darker and inclining to smoky plumbeous on hind head, hind neck, and back; rump similar to back but darker; middle portion of lesser wing-covert area and uppermost lesser, middle, and greater wing-coverts dull sooty blackish; greater and middle wing-coverts, tertials, and anterior portion of lesser wing-covert area pale greyish brown or drab; remiges (except tertials), primary-coverts, and alula dull black; upper tail-coverts white, broadly tipped with dull blackish, these blackish tips very sharply and regularly defined and nearly 0·60 of an inch in extent on longest feathers; tail dull slate-blackish. Lower parts (except chin and throat) uniform deep greyish brown, the axillars similar but more greyish; under wing-coverts light greyish brown. Bill and feet entirely black. Length (skin) 8·40 inches, wing 6·40, tail 3·90 (forked for 1·00), culmen 0·60, bill from anterior end of nasal tubes 0·38, tarsus 0·93, middle toe with claw 0·93, outer 0·98.

"*Hab.* Guadalupe Island, Lower California.

"This fine species is very distinct from *O. leucorrhoa*, from which it is at once distinguished by its longer and much more deeply forked tail, with narrower and more tapering lateral feathers; much larger feet, shorter bill, and certain very decided differences of coloration. Of the last, the most obvious character consists in the very broad and sharply defined blackish tips to the upper tail-coverts, reducing the white to a narrow curved or crescent-shaped band, about 0·40 of an inch wide. The black is also appreciably more strongly tinged with slaty, and the underparts are somewhat darker.

"The blackish tips of the upper tail-coverts recall *O. cryptoleucura*, Ridgw., of the Sandwich Islands; but the latter is small, has the tail very much shorter and so little forked as to be almost truncated, and the coloration of the wings much more uniform, while the feet are even smaller than in *O. leucorrhoa*."

The above description and note were sent me by Mr. Ridgway, who compiled them from one of the types. There is no specimen in the British Museum Collection.

4. Oceanodroma socorroensis.

Oceanodroma socorroensis, *C. H. Townsend, Pr. U.S. Nat. Mus.* xiii. p. 134 (1890).

"*Sp. char.* Similar to *O. homochroa*, Coues, but shorter lateral upper tail-coverts chiefly greyish white (producing a distinct spot on each side of the rump), longer upper tail-coverts smoky grey, and under wing-coverts same colour as underparts of the body, instead of being broadly margined with greyish white.

"*Adult male* (type, no. 117497, U.S. Nat. Mus.; Socorro Island, off west coast of Mexico, March 8, 1889; *C. H. Townsend*). Above plain dark sooty-brown (almost 'clove' brown), becoming much paler (light greyish brown or drab) on anterior portion of head, including entire lores and forehead; middle wing-coverts (old feathers) also light greyish brown or drab; greater coverts (new feathers) smoke-grey; edges of innermost secondaries (not tertials) passing through smoke-grey into greyish white terminally (new feathers) or through drab into brownish white (old feathers); tertials, outermost secondaries, primaries, primary-coverts, &c. sooty-black; lateral upper tail-coverts (except longer feathers) greyish white (pure white basally), with concealed portion of inner webs brownish grey; longer upper tail-coverts uniform smoke-grey; tail sooty slate-black, the feathers whitish at extreme base; underparts, including under wing-coverts, plain deep sooty-grey, paler (light greyish brown or drab) on chin and throat, darker on under tail-coverts; bill, legs, and feet entirely black. Total length (skin) 6·80 inches, wing 5·55, tail 2·85, forked for 0·40, exposed culmen 0·58, nasal tube 0·27, tarsus 0·82, middle toe with claw 0·85.

"*Hab.* Socorro I., coast of Mexico.

"This species is about the same size and proportions as *O. homochroa*, and resembles it very closely in general coloration, but may readily be distinguished by the very different coloration of the upper tail-coverts and under wing-coverts. The shorter median upper tail-coverts are apparently wanting, and it is possible that specimens having these feathers present would show a continuous greyish-white band across the basal portion of the upper tail-covert region: in other words, what are in the type two lateral patches may in perfect plumaged specimens have these two patches united."

Mr. Ridgway has kindly furnished me with the above description and note, there being no specimen of the species in the Museum Collection.

5. Oceanodroma fuliginosa.

Sooty Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 409 (1785).

Procellaria fuliginosa, *Gm. Syst. Nat.* i. p. 562 (1788); *Lath. Ind. Orn.* ii. p. 825 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 418 (1817); *id. Enc. Méth.* p. 76 (1823).

Daption? fuliginosum, *Steph. in Shaw's Gen. Zool.* xiii. p. 248 (1826).

Thalassidroma fuliginosa, *Gray, Gen. Birds*, iii. p. 648 (1844); *id. Cat. Birds Trop. Is. Pac.* p. 59 (1859).

Oceanodroma fuliginosa, *Stejn. Pr. U.S. Nat. Mus.* xvi. p. 620 (1893).

"*Adult* (No. 1555, Science College Museum, Tokyo; Torishima, Japan, 1891; *Y. Tanaka*). Crown, occiput, hind neck, back, scapulars, and upper rump uniform dark sooty-slate, darker and more sooty on posterior scapulars, the longest feathers of which are distinctly paler at ends, with a narrow terminal margin of brownish white; lesser and uppermost median and greater wing-coverts sooty-black; rest of wing-coverts and tertials light greyish brown (between 'broccoli' and 'hair-brown'); alula, primary-coverts, and remiges uniform sooty-black; lower rump light greyish brown; upper tail-coverts and tail sooty-black, like remiges, &c. Anterior portion of head, all round, silky deep sooty-grey or greyish brown, deepening gradually into the darker colour of occiput, &c.; underparts uniform sooty-greyish brown (much like colour of greater wing-coverts), the under wing-coverts rather lighter and more tinged with brown: bill and feet black. Total length (skin) about 10·00 inches, wing 7·50, tail 4·45, forked for 1·60, culmen 0·70, depth of bill just before nasal tubes 0·25, tarsus 1·10, middle toe with claw 1·10.

"*Hab.* Japanese Seas.

"In coloration this species much resembles *O. homochroa*, but is darker. Its very large size is, however, its most obvious distinctive character."

The above description has been supplied to me by Mr. Ridgway.

I believe Mr. Stejneger is right in referring the bird described above to the hitherto unrecognized *Procellaria fuliginosa*, Gm. The application of the specific name *fuliginosa* to this species involves the rejection of it for every other species of Petrel except *Phœbetria fuliginosa*.

6. Oceanodroma melania.

Procellaria melania, *Bp. Compt. Rend.* xxxviii. p. 662 (1854).
Thalassidroma melania, *Bp. Consp. Av.* ii. p. 196 (1856); *id. Compt. Rend.* xlii. p. 769 (1856).
Cymochorea melania, *Coues, Pr. Ac. Phil.* 1864, p. 76; *id. Key N. Am. Birds*, ed. 1, p. 329 (1872), ed. 2, p. 781 (1884); *id. Check-l. N. Am. Birds*, p. 127 (1882); *id. Auk*, 1884, p. 81; *Elliot, B. N. Am.* ii. pl. 61. fig. 1 (1867); *Nelson, Cruise 'Corwin,'* p. 113 (1883); *Ridgw. Pr. U.S. Nat. Mus.* v. p. 534 (1883); *id. Auk*, vi. p. 111 (1886); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 411 (1884); *Cooper, Auk*, 1886, p. 125; *A. O. U. Check-l. N. Am. Birds*, p. 105 (1886).
Oceanodroma melania, *Ridgw. Man. N. Am. Birds*, p. 70 (1887).
Thalassidroma scapulata (?), *Brandt, fide Bp.*
Oceanodroma townsendi, *Ridgw. Pr. U.S. Nat. Mus.* xvi. p. 687.

Adult. Sooty-black, uniform above, rather paler on the under surface; greater and median wing-coverts pale greyish sooty-brown; tail forked; rectrices uniform sooty-black: bill and legs black. Total length about 9 inches, wing 7; tail, central rectrices 2·3, lateral rectrices 3·5; bill 0·82 (exposed culmen 0·6), tarsus 1·21, middle toe and claw 1·2. (*Type in Mus. Paris.*)

The difficulty surrounding this species has been removed by the kind transmission, by the authorities of the Paris Museum, of the type to London for comparison with the allied forms. Having also before me two of the specimens recently described by Mr. Ridgway as *O. townsendi*, I am able to make a thorough examination of the two birds, and find them to belong undoubtedly to the same species, the very slight differences in measurement being quite within the range of dimensions given by Mr. Ridgway of *O. townsendi*.

It thus appears that Dr. Coues's original determination of Bonaparte's *Procellaria melania* was quite correct, notwithstanding Pucheran's erroneous measurements, that *O. townsendi* is a synonym of *O. melania*, and that *O. markhami* is a distinct species, as is also the bird from Japan in Canon Tristram's collection attributed to *O. melania* by Mr. Seebohm.

Hab. Coast of Lower California and Gulf of California.

7. Oceanodroma markhami.

Cymochorea markhami, *Salv. P. Z. S.* 1883, p. 430; *Tacz. Orn. Pér.* iii. p. 462 (1886).
Oceanodroma markhami, *Ridgw. Man. N. Am. Birds*, p. 71 (1887). See *Stejn. Pr. U.S. Nat. Mus.* xvi. p. 621 (1893).

Adult female. Sooty-brown, nearly uniform, entire head tinged with plumbeous; greater and median wing-coverts paler sooty; tail deeply forked; the rectrices uniform sooty-black: bill and legs black. Total length about 9 inches, wing 7; tail, central rectrices 2·45, lateral rectrices 3·75; bill 0·9, tarsus 0·95, middle toe 0·95, outer toe 0·92, inner toe 0·8.

Hab. West coast of Peru.

a. ♀ ad. sk.	Coast of Peru, lat. 10° 40′ S., long. 75° W. (*Capt. A. H. Markham*).	Salvin-Godman Coll.	
b. ♀ ad. sk.	Coast of Peru, lat. 23° S., long. 73° W. (*A. H. M.*).	Salvin-Godman Coll.	(Types of the species.)

8. Oceanodroma tristrami.

Procellaria melania, *Seeb.* (*nec Bp.*) *Birds Jap. Emp.* p. 270 (1890).
Oceanodroma markhami, *Stejn. Pr. U.S. Nat. Mus.* xvi. p. 621 (1893).
Oceanodroma tristrami, *Stejn. MS.*

"*Adult male* (No. 9781, coll. H. B. Tristram; Sendai Bay, Japan, July 1874). Anterior portion of head, all round, sooty-greyish brown (decidedly darker than in *O. homochroa*), changing gradually to sooty-blackish slate on hinder crown, occiput, and hind neck, and to deep greyish sooty-brown on fore neck and chest; rest of underparts light greyish sooty-brown, each feather indistinctly tipped with darker (colour of chest), producing a very faint transversally mottled appearance, the under tail-coverts, however, uniform, though the colour gradually becomes darker towards ends of the longer feathers; under wing-coverts uniform light greyish sooty-

brown, those along edge of the wing much darker, with pale margins; back, scapulars, and upper rump sooty slate-colour, each feather with one or two very indistinct darker bars, and tipped with a more decided slaty hue; lesser wing-coverts and tertials darker greyish sooty-brown, the longer of the latter narrowly margined with paler; middle and greater wing-coverts and innermost secondaries light greyish brown, the margins of the secondaries and approximate coverts sooty-blackish; lower rump light greyish brown (like large wing-coverts); upper tail-coverts and tail dark greyish brown (much paler than remiges), each feather showing a subterminal broad transverse spot of a darker shade of the same colour: bill and feet black. Total length (skin) about 9 inches, wing 6·20, tail 3·78, forked for 1·60, culmen 0·70, depth of bill through middle 0·20, tarsus 1·10, middle toe with claw 1·12.

"*Hab.* Japan.

"Apart from an indistinctly mottled appearance, particularly of the underparts, which I am inclined to consider an abnormal feature, this species comes very near to *O. monorhis* (Swinh.) in coloration. The latter, however, lacks the lighter rump-patch, and also has the light-coloured wing-area more restricted, occupying, as it does, much less of the innermost secondaries and not the whole (as in this species) of the greater coverts. There is still greater difference between the two in form; the present bird having the tail far more deeply forked, and the primaries remarkably short and pointed, their shape being, in fact, quite unlike that in any other species of the genus that I have been able to examine."

Mr. Ridgway sent me the above description of Canon Tristram's type, together with the name suggested for the bird by Mr. Stejneger, which I adopt.

The latter writer at one time considered that the specimen was referable to my *O. markhami*, but this proves, on comparing the two birds, not to be the case. They are, however, very closely allied; the tarsus of *O. markhami* is slightly shorter, and the colour of the head and mantle more plumbeous. The wing-feathers of the type of *O. tristrami* are not quite fully grown, so that I cannot compare the wings of the two birds for their respective lengths. The dimensions otherwise seem to be nearly the same.

9. Oceanodroma homochroa.

Thalassidroma melania, *Lawr. Birds N. Am.* p. 830 (1860); *id. Atlas*, pl. 99. fig. 2 (*fide Coues*).

Cymochorea homochroa, *Coues, Pr. Ac. Phil.* 1864, pp. 77, 90; *id. Key N. Am. Birds*, ed. 1, p. 329 (1872), ed. 2, p. 781 (1884); *id. Check-list N. Am. Birds*, p. 127 (1882); *Elliot, Birds N. Am.* i. Introd. (1869); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 411 (1884); *Ridgw. Auk*, iii. p. 267 (1886); *A. O. U. Check-l. N. Am. Birds*, p. 105 (1886).

Oceanodroma homochroa, *Ridgw. Pr. U.S. Nat. Mus.* viii. p. 356 (1885); *id. Man. N. Am. Birds*, p. 71 (1887).

Adult. Uniform sooty-black with a tinge of plumbeous; edges

of the greater coverts pale sooty; greater under wing-coverts variegated with dirty white; bill and feet black. Total length about 7·50 inches, wing 5·3; tail, central rectrices 2·2, lateral rectrices 3·1; bill 0·75, tarsus 0·9, middle toe 0·85, outer toe 0·83, inner toe 0·7.

Hab. Coast of California.

a. Ad. sk. San Miguel I., California (*Captain S. Forney*: *Henshaw Coll.*). Salvin-Godman Coll.

10. Oceanodroma monorhis. (Plate II.)

Thalassidroma monorhis, *Swinh. Ibis*, 1867, p. 386, 1869, p. 348; *id. P. Z. S.* 1871, p. 422; *David & Oust. Ois. Chine*, p. 515 (1877); *Stejn. Pr. U.S. Nat. Mus.* x. p. 414 (1887).
Oceanodroma monorhis, *Stejn. Pr. U.S. Nat. Mus.* xvi. p. 622 (1893).
Procellaria sp. inc., *Rickett, Ibis*, 1894, p. 225.
Procellaria monorhis, *H. H. Slater, Ibis*, 1894, p. 226.

Adult female. Similar to *O. homochroa*, but a little larger; greater and median wing-coverts pale ashy, the edges of the former nearly white; head plumbeous, the face paler; under wing-coverts uniform sooty. Total length about 7·6 inches, wing 6; tail, central rectrices 2·2, lateral 2·9; bill 0·8, tarsus 0·9, middle toe 0·9, outer toe a trifle shorter, inner toe 0·7.

Obs. There is a specimen of this species in the Tokyo Museum.

Hab. Coast of China and Japan.

a. ♀ ad. sk. Amoy, China, Nov. 1866 (*R. Swinhoe*). Seebohm Coll. (Type of the species.)

11. Oceanodroma hornbyi. (Plate III.)

Procellaria hornbyi, *Gray, P. Z. S.* 1853, p. 62; *id. Hand-l. B.* iii. p. 105 (1871).
Oceanodroma hornbyi, *Bp. Consp. Av.* ii. p. 195 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 75, 90; *id. Key N. Am. Birds*, p. 329 (1872), ed. 2, p. 782 (1884); *id. Check-list N. Am. Birds*, p. 127 (1882); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 415 (1884); *Ridgw. Man. N. Am. Birds*, p. 70 (1887).
Thalassidroma hornbyi, *Lawr. Birds N. Am.* p. 829 (1860).

Adult. Upper surface dusky brown, paler and greyer on the upper portion of the back; hind neck greyish white, forming with the white throat a cervical collar; occiput, nape, and region round the eyes black; forehead, lores, and under surface white; a dark cinerous pectoral band; wings black; greater and median coverts greyish sooty; under wing-coverts pale greyish sooty; tail dusky brown: bill and legs black. Total length about 8·8 inches, wing 6·7; tail, central rectrices 2·7, lateral rectrices 3·9; bill 0·9, tarsus 0·95, middle toe 0·95, outer toe 0·92, inner toe 0·79.

Hab. North-eastern Pacific Ocean.

a. Ad. sk. N.W. America. Miss Hornby [P.]. (Type of the species.)

12. Oceanodroma furcata.

Fork-tailed Petrel, *Penn. Arct. Zool.* ii. p. 255, no. 463; *Lath. Gen. Syn.* iii. pt. 2, p. 410; *id. Gen. Hist.* x. p. 188 (1824).

Procellaria furcata, *Gm. Syst. Nat.* i. p. 561 (1788); *Lath. Ind. Orn.* ii. p. 825 (1790); *Vieill. N. Dict. d'Hist. N.* xxv. p. 423 (1817); *id. Enc. Méth.* p. 76 (1823); *Kuhl, Beitr.* p. 136 (1820); *Schl. Mus. P.-B.*, vi. Procell. p. 3 (1863); *Gray, Hand-l.* iii. p 105 (1871); *Blakist. & Pryer, Birds Jap.* p. 106 (1882); *Blakist. Amend. List Birds Jap.* pp. 21, 35 (1884); *Seeb. Ibis*, 1884, p. 33; *id. Birds Jap. Emp.* p. 271 (1890).

Pachyptila furcata, *Steph. in Shaw's Gen. Zool.* xiii. p. 255 (1826).

Thalassidroma furcata, *Gould, Zool. Voy.* '*Sulphur*,' p. 59, pl. 33 (1844); *Gray, List Anseres Brit. Mus.* p. 161 (1844); *id. Gen. Birds.* iii. p. 648, pl. 178 (1844); *Peale, U.S. Expl. Exp.* viii. pp. 292, 337, pl. 78 (1848); *Reich. Syst. Av., Suppl. Longip.* pl. xi. fig. 785 (1852); *Lawr. Birds N. Am.* p. 829 (1860); *Dall, Notes Avif. Aleut. Is.* p. 9 (1874).

Oceanodroma furcata, *Bp. Consp. Av.* ii. p. 194 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 74, 89; *id. Key N. Am. Birds*, p. 329 (1872), ed. 2, p. 782 (1884); *id. Check-list N. Am. Birds*, p. 127 (1882); *Swinh. Ibis*, 1867, p. 387; *Nelson, Cruise* '*Corwin*,' p. 113 (1883); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 413 (1884); *Turner, Auk*, ii. p. 158 (1885); *id. Contr. Nat. Hist. Alaska*, p. 129 (1886); *Ridgw. Man. N. Am. Birds*, p. 70 (1887); *Blak. Pr. U.S. Nat. Mus.* ix. p. 655 (1887); *Stejn. Pr. U.S. Nat. Mus.* x. p. 125 (1887); *id. Bull. U.S. Nat. Mus.* no. 29, p. 98 (1885); *Palmer, Pr. Cal. Ac. Sc.* (2) ii. p. 88 (1889); *Tacz. Mém. Ac. Imp. St. Pétersb.* xxxix. p. 1068 (1893).

Procellaria orientalis, *Pall. Zoogr. Ross.-As.* ii. p. 315 (1811) (*cf. Coues, Pr. Ac. Phil.* 1864, p. 74; *Swinh. Ibis*, 1867, p. 387; *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 98).

Adult male. Cinereous, scapulars and wings outwardly greyish black; wing-coverts edged with greyish white; area below the eye black; under surface pale grey, throat and under tail-coverts nearly white; under wing-coverts and axillaries greyish black, edged with white; tail grey, darker towards the tip, the outer web of the outer rectrix on either side white nearly to the tip: bill and feet black. Total length about 8 inches, wing 6·2; tail, central rectrices 2·65, lateral rectrices 3·4; bill 0·85, tarsus 1·02, middle toe 1·06, outer toe 0·98, inner toe 0·82.

Hab. North Pacific Ocean as far south as Oregon.

a. Ad. sk.	N.W. America.	Capt. Belcher [P.].
b, c. Ad. sk.	Sitka.	G. Barclay [P.].
d. ♀ ad. sk.	Sitka, May (*F. Bischoff*).	Salvin-Godman Coll.
e. Ad. st.	Sitka.	Gould Coll.
f. ♀ ad. sk.	Alaska, Nov. (*E. W. Nelson*).	Salvin-Godman Coll.
g, h. ♂ ad. sk.	St. Michael's, Alaska, Oct. (*E. W. Nelson*).	Salvin-Godman Coll.
i. Ad. sk.	Vancouver's I.	Dr. Lyall [P.].
j. Ad. st.	Aleutian Is.	Purchased.
k. ♂; *l–n.* ♀ ad. sk.	Kurile Is., June (*H. J. Snow*).	Seebohm Coll.
o. ♂ ad. sk.	Kurile Is., May (*Blakiston*).	Seebohm Coll.

Subfamily II. OCEANITINÆ.

Key to the Genera.

a. Basal phalanx of the middle toe normal or only slightly flattened, less than the remaining joints and claw.
  a'. Claws sharp, spatulate, not much flattened.
    a''. Scutellæ of the front of the tarsus obsolete ..... 4. Oceanites, p. 358.
    b''. Scutellæ of the front of the tarsus distinct ..... 5. Garrodia, p. 361.
  b'. Claws flattened and wide.
    c''. 1st primary much shorter than the third ..... 6. Pelagodroma, [p. 362.
    d''. 1st primary longer than the 3rd ..... 7. Pelea, p. 364.
b. Basal phalanx of the middle toe much flattened, equal to or longer than the remaining joints and claw ..... 8. Cymodroma, p. 364.

4. OCEANITES.

Type.

Oceanites, *Keyserling & Blasius, Wirb. Eur.* ii. pp. xciii, 131, 238 (1840); *Coues, Pr. Ac. Phil.* 1864, p. 82; *Forbes, Voy. Chall., Zool.* iv. pt. xi. p. 56 (1882) .... O. oceanicus.

Range. Whole Southern Ocean, Atlantic Ocean, into the North Temperate Zone.

Key to the Species.

a. Larger: abdomen sooty ..... *oceanicus*, p. 358.
b. Smaller: middle of abdomen white ..... *gracilis*, p. 361.

1. Oceanites oceanicus.

Procellaria pelagica, *Wils. Am. Orn.* vii. p. 90, pl. 60. fig. 6 (1813) (*nec Linn.*).

Procellaria oceanica, *Kuhl, Beitr.* p. 136 (1820), *ex Banks's Icon.* no. 12; *Bp. Journ. Ac. Phil.* iii. p. 233 (1823); *Steph. in Shaw's Gen. Zool.* xiii. p. 223 (1826); *Bp. Zool. Journ.* iii. p. 89 (1827); *Schl. Mus. P.-B.*, vi. Procell. p. 6 (1863); *Pollen & Van Dam, Faun. Mad., Ois.* p. 145 (1868); *Gray, Hand-l.* iii. p. 104 (1871); *Sharpe, Ibis*, 1872, p. 74; *id. in Layard's Birds S. Afr.* ed. 2, p. 765 (1884); *Gurney, in Anderss. Birds Damara Land*, p. 351 (1872); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873); *Ussher, Ibis*, 1874, p. 75.

Procellaria wilsoni, *Bp. Journ. Ac. Phil.* iii. p. 231, pl. 9 (1823); *id. Zool. Journ.* i. p. 425 (1824); *id. Comp. List*, p. 64 (1838); *Steph. in Shaw's Gen. Zool.* xiii. p. 224 (1826); *Nutt. Man. Water-Birds N. Am.* p. 322 (1834); *Aud. Orn. Biogr.* iii. p. 486, v. p. 645; *id. Birds N. Am.* pl. 270; *id.* 8vo ed. viii. p. 106, pl. 460; *Temm. Man.* iv. p. 512 (1840); *Schl. Rev. Crit. Ois. Eur.* p. cxxxiii (1844); *Brehm, Naum.* 1855, p. 296; *id. Vogelf.* p. 354; *Burm. Syst. Ueb. Th. Bras.* iii. p. 446 (1856); *Hartl. Orn. W.-Afr.* p. 251 (1856); *Jaub. & Barth.-Lapomm. Rich. Orn. Fr.* p. 384 (1858); *Lawr. Birds N. Am.* p. 831 (1860); *Fritsch, Vög. Eur.* pl. 61. fig. 3 (1870); *Butl. Str. F.* v. p. 291 (1877); *Rowley, Orn. Misc.* ii. p. 110 (1877); *Layard, Ibis*, 1878, p. 264; *Mayn. Birds E. N. Am.* p. 491 (1879); *Samuels, N. & E. Birds*, p. 553 (1883).

Wilson's Stormy Petrel, *Nutt. Man., Water-Birds*, p. 322 (1834).

Oceanites wilsoni, *Keys. & Blas. Wirb. Eur.* pp. xciii, 238 (1840); *Bp. Consp. Av.* ii. p. 199 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Borygr. Vogelf.* p. 140 (1869); *Salvad. Faun. Ital., Ucc.* p. 301 (1871); *Gundl. Orn. Cuba*, p. 223 (1876); *Layard, Ibis*, 1882, pp. 539, 544; *Seeb. Hist. Brit. Birds*, iii. p. 449 (1885).

Thalassidroma oceanica, *Schinz, Europ. Faun.* i. p. 397 (1840); *Gould, Voy. 'Beagle,'* ii. *Birds*, p. 141 (1841); *Gray, List Anseres Brit. Mus.* p. 161 (1844); *id. Gen. B.* iii. p. 648 (1844); *id. Cat. Brit. Birds*, p. 225 (1863); *Peale, U.S. Expl. Exp.* viii. p. 337 (1848); *Reich. Syst. Av., Suppl. Longip.* pl. xi. fig. 783 (1852); *Layard, Birds S. Afr.* p. 359 (1867); *Degl. & Gerbe, Ois. Eur.* ii. p. 386 (1867); *Hutton, Ibis*, 1867, p. 190; *Pelz. Reise 'Novara,' Zool.* i. *Vög.* p. 144 (1869); *Legge, Stray F.* iii. p. 375; *Hartl. Vög. Madag.* p. 372 (1877); *Milne-Edw. Ann. Sc. Nat., Zool.* 1882, p. 18; *M.-Edw. & Grand. Hist. Madag., Ois.* p. 676, pls. 299, 300 (1885); *Arévalo, Aves de Esp.* p. 409 (1887); *Reichenow, J. f. Orn.* 1890, p. 107.

Wilson's Petrel, *Yarr. Brit. Birds*, iii. p. 516 (1843).

Thalassidroma wilsoni, *Aud. Birds Am.* 8vo ed. vii. p. 223, pl. 460 (1844); *Schl. Rev. Crit. Ois. Eur.* p. cxxxiii (1844); *Gould, Birds Austr.* vii. pl. 65 (1846); *Reich. Natat.* pl. cclxvii. figs. 2237–8 (1850); *Grill, Zool. Anteckn.* pp. 12, 57 (1858); *Jones, Nat. Bermuda*, pp. 55, 92 (1859); *Lawr. Birds N. Am.* p. 831 (1860); *Layard, Ibis*, 1863, p. 249; *D. Walker, P. Z. S.* 1863, p. 379; *Godm. Ibis*, 1866, p. 104; *id. Nat. Hist. Azores*, pp. 40, 42 (1870).

Oceanites oceanicus, *Bp. Consp. Av.* ii. p. 199 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Salvad. Atti Soc. Ital. Sc. Nat.* vi. p. 132 (1864); *Coues, Pr. Ac. Philad.* 1864, pp. 82, 90; *id. Key N. Am. Birds*, p. 329 (1872); *id. op. cit.* ed. 2, p. 784 (1884); *id. Check-list N. Am. Birds*, p. 127 (1882); *Gould, Handb. Birds Austr.* ii. p. 478 (1865); *Gigl. Faun. Vert. Oceano*, p. 37 (1870); *id. Viagg. 'Magenta,'* see index (1875); *Brooke, Ibis*, 1873, p. 348; *Allen, Bull. Mus. Comp. Zool. Cambr.* ii. p. 365 (1874); *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 30 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 16 (1876); *Salv. in Rowley's Orn. Misc.* i. p. 238 (1876); *id. P. Z. S.* 1878, p. 735; *id. Voy. Chall., Zool.* ii. pt. viii. p. 141 (1881); *id. Cat. Strickl. Coll.* p. 628 (1882); *Hume & Dav. Str. F.* vi. p. 490 (1878); *Dresser, Birds Eur.* viii. p. 505, pl. 614 (1878); *Butl. Str. F.* vii. p. 178 (1878); *Hume, Str. F.* viii. p. 115 (1879); *Sharpe, Phil. Trans.* clxviii. p. 132 (1879); *id. P. Z. S.* 1881, p. 11; *id. ed. Layard's Birds S. Afr.* p. 763 (1884); *Legge, Birds Ceyl.* p. 1056 (1880); *Saund. P. Z. S.* 1880, p. 164; *id. ed. Yarr. Brit. Birds*, iv. p. 48 (1884); *id. Man. Brit. Birds*, p. 729 (1889); *Cory, Birds Bah. Is.* p. 218 (1880); *id. Auk*, vi. p. 80; *id. Birds W. Ind.* p. 281; *B. O. U. List Brit. Birds*, p. 197 (1882); *Stearns, New-Engl. Bird-Life*, ii. p. 383 (1883); *Oates, Handb. Birds Burm.* ii. p. 437 (1883); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 416 (1884); *Brewst. Pr. Bost. Soc. N. H.* xxii. p. 364; *Turner, Pr. U.S. Nat. Mus.* viii. p. 253 (1885); *Wells, Pr. U.S. Nat. Mus.* ix. p. 632 (1886); *Tacz. Orn. Pér.* iii. p. 463 (1886); *A. O. U. Check-l. N. Am. Birds*, p. 105 (1886); *Ridgw. Man. N. Am. Birds*, p. 71 (1887); *Tait, Ibis*, 1887, p. 397; *Buller, Birds N. Zeal.* ed. 2, ii. p. 250 (1888); *id. Tr. N. Zeal. Inst.* xxv. p. 81 (1893); *Cory, Auk*, v. p. 80 (1888); *Dutcher, Auk*, vi. pp. 128, 132, 197 (1889); *Palmer, Pr. U.S. Nat. Mus.* xiii. p. 258 (1890); *Macph. Ibis*, 1891, p. 603; *Borrer, Birds Sussex*, p. 287 (1891); *Cory, Cat. West Ind. Birds*, p. 84 (1892);

Meade-Waldo, Ibis, 1893, p. 206; *Scl. Ibis*, 1894, p. 498; *Irby, Birds Gibr.* ed. 2, p. 310 (1895).

Adult male. Sooty-black, forehead and under surface rather paler; greater wing-coverts greyish; upper tail-coverts white; under wing-coverts sooty; tail black, shafts of the lateral rectrices towards the base and the portion of the inner web adjoining white: bill black; legs black, inner portion of the webs between the toes yellow. Total length about 6·8 inches, wing 6·1; tail, lateral rectrices 2·7, central rectrices 2·45; bill 0·7, tarsus 1·37, middle toe 1·1, outer toe 1·08, inner toe 1.

Female. Similar to the male.

Hab. Atlantic Ocean as far north as the British Islands and the coast of Labrador, and thence southwards to the Ice-barrier in the Antarctic Ocean, Kerguelen Land, &c.; Indian Ocean from the Mekran Coast southwards; Australian Seas and New Zealand.

a. Ad. st.	[Yarmouth.]	Purchased.
b, *c*. ♂ ♀ ad. sk.	At sea, 30 miles W. of Fayal, Azores, May 21 (*F. D. Godman*).	Salvin-Godman Coll.
d, *e*. Ad. sk.	Bay of Biscay.	Gould Coll.
f. ♀ ad. sk.	N. Atlantic, lat. 36° 45′ N., long. 12° 15′ W., June 24, 1852 (*F. M. Rayner*).	Voy. H.M.S. 'Herald.'
g. Ad. sk.	Atlantic Coast of N. America (*ex G. N. Lawrence*).	Salvin-Godman Coll.
h. Ad. sk.	N. America (*J. J. Audubon*).	Smithsonian Inst.
i, *j*. Ad. sk.	Fantee, W. Africa (*Ussher*).	Shelley Coll.
k. Ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
l. ♂ ad. sk.	S. Atlantic, lat. 9° 47′ S., long. 33° 5′ W., Nov. 1878.	Dr. Coppinger.
m. Ad. sk.	South Atlantic.	Hume Coll.
n. ♀ ad. sk.	S. Atlantic, lat. 36° S., long. 6° 47′ E.	Gould Coll.
o. Ad. sk.	S. Atlantic, lat. 35° 29′ S., long. 9° 46′ E., Sept. 22.	Earl of Crawford and Balcarres [P.].
p. Ad. sk.	Lat. 32° 36′ S., long. 52° 58′ E., Oct. 19.	Earl of Crawford and Balcarres [P.].
q. Ad. sk.	Damara-land.	Tweeddale Coll.
r. Ad. st.	Cape of Good Hope.	Sir A. Smith [P.].
s. Ad. st.	Atlantic Ocean.	Rev. W. Hennah.
t. ♀ ad. sk.	Mekran Coast, May 28, 1877 (*Capt. Butler*).	Hume Coll.
u. ♂ ad. sk.	Royal Sound, Kerguelen Land (*Rev. A. E. Eaton*).	Transit of Venus Exp.
v–*x*. ♂ ad.; *y*. ♀ ad. sk.	Ice Barrier, Antarctic Ocean, Feb. 14, 1874.	'Challenger' Exped.
z, *a′*. ♂ ad. sk.	Pack ice, off Louis Philippe Land, Jan. 27, 1843.	Dr. McCormick [P.].
b′. ♂ ad. sk.	[Pack ice, Antarctic Ocean], Jan. 12, 1843 (*J. McCormick*).	Antarctic Exped.
c′. Ad. sk.	[Antarctic Ocean.]	Antarctic Exped.
d′. Ad. sk.	Port Essington, N.W. Australia.	Salvin-Godman Coll.
e′. Ad. sk.	Coast of Queensland.	Salvin-Godman Coll.

f'. Ad. sk.	[S. Australia.]	Sir G. Grey [P.].
g'. Ad. st.	[S. Australia.]	Sir G. Grey [P.].
h'. ♀ ad. sk.	New Caledonia, June 21 (*E. L. Layard*).	Seebohm Coll.
i'. Skeleton.		
j'. ? Sternum.		

2. Oceanites gracilis.

Thalassidroma gracilis, *Elliot, Ibis*, 1859, p. 391.
Oceanites gracilis, *Coues, Pr. Ac. Phil.* 1864, p. 85; *Ridgw. Man. N. Am. Birds*, p. 71 (1887).
? Procellaria oceanica, *Schl. Mus. P.-B.*, vi. Procell. p. 6 (1863); *Scl. P. Z. S.* 1867, p. 336.
Oceanites wilsoni, *Gigl. Faun. Vert. Oceano*, p. 38 (1870); *id. Viagg. 'Magenta,'* pp. 844, 888 (1875).
Procellaria gracilis, *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873).
? Thalassidroma wilsoni, *Coppinger, Cruise of the 'Alert,'* p. 87 (1883).

Female. Similar to *O. oceanicus*, but smaller; the middle of the abdomen white; bill, tarsi, and toes shorter and more slender. Total length about 5·8 inches, wing 5, tail 2·2, bill 0·65, tarsus 1·05, middle toe 0·85.

The webs between the toes in this species, as in *O. oceanicus*, have a yellow triangular spot, which is more plainly seen from below.

Hab. West coast of South America.

a. ♀ ad. sk.	Iquique, coast of Peru, June 19, 1890 (*A. A. Lane*).	H. Berkeley James, Esq. [P.].

5. GARRODIA.

Type.

Garrodia, *Forbes, P. Z. S.* 1881, p. 735; *id. Voy. Chall., Zool.* iv. pt. xi. p. 56 (1882) ..... G. nereis.

Hab. Southern Ocean: Falkland Islands, New Zealand, &c.

1. Garrodia nereis.

Thalassidroma nereis, *Gould, P. Z. S.* 1840, p. 178; *id. op. cit.* 1859, p. 98; *id. Birds Austr.* vii. pl. 64 (1845); *id. Ibis*, 1859, p. 98; *Gray, Gen. Birds*, iii. p. 648 (1844); *id. Ibis*, 1862, p. 245; *Scl. P. Z. S.* 1860, p. 390; *Abbott, Ibis*, 1861, p. 164; *Hutton, Cat. Birds N. Zeal.* p. 47 (1871); *id. Ibis*, 1872, p. 249; *Buller, Birds N. Zeal.* p. 322 (1873); *Finsch, J. f. Orn.* 1870, p. 370; *id. op. cit.* 1874, p. 213; *Cab. & Reich. J. f. Orn.* 1876, p. 329.
Procellaria nereis, *Bp. Consp. Av.* ii. p. 196 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 81, 90; *Gould, Handb. Birds Austr.* ii. p. 476 (1865); *Hutton, Ibis*, 1870, p. 396; *Gigl. Faun. Vert. Oceano*, p. 36 (1870); *id. Viagg. 'Magenta,'* pp. 736, 800 (1875); *Gray, Hand-l.* iii. p. 104 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873); *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 31 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 16 (1876); *Sharpe, Phil. Trans.* clxviii. p. 129 (1879).
Oceanitis nereis, *Cab. J. f. Orn.* 1875, p. 449.
Garrodia nereis, *Forbes, P. Z. S.* 1881, p. 735; *id. Voy. Chall., Zool.* iv. pt. xi. p. 56, &c. (1882); *Buller, Birds N. Zeal.* ed. 2, ii. p. 247 (1888); *id. Trans. N. Z. Inst.* xxiv. p. 86 (1892); *H. O. Forbes, Ibis*, 1893, p. 542.

Adult female. Greyish black, darkest on the head and becoming gradually greyer towards the rump, the upper tail-coverts being ashy with darker shafts; wings black; median coverts ashy, these feathers as well as those of the back and the upper tail-coverts edged narrowly with white; under surface from the breast to the under tail-coverts and the inner under wing-coverts pure white; the flanks and the sides of the latter streaked with grey; tail grey, broadly tipped with black: bill and legs black. Total length about 6·7 inches, wing 5·2, tail 2·7, bill 0·65, tarsus 1·25, middle toe 1·2, outer toe 1, inner toe 0·92.

Male. Similar to the female.

Hab. Southern Ocean from Kerguelen Land to New Zealand and the Falkland Islands.

a. ♀ ad. sk.	Royal Sound, Kerguelen Land (*Rev. A. E. Eaton*).	Transit of Venus Expedition.
b. Ad. sk.	Kerguelen Land (*U.S. Transit of Venus Exped.*).	Seebohm Coll.
c. ♀ ad. sk.	Southern Ocean, lat. 43° S., long. 140° E.	Geological Mus. [P.].
d. Ad. sk.	Off E. coast of N. S. Wales, July (*J. Macgillivray*).	Capt. Stanley [P.]
e. Ad. sk.	[Australian Seas.]	Purchased.
f. Ad. sk.	New Zealand.	Sir G. Grey [P.].
g, h. ♂ ♀ ad.sk.	S.E. Island, Chatham Is., May.	H. O. Forbes, Esq. [C.].
i. Ad. sk.	Falkland Is. (*Falkland Is. Co.*).	Salvin-Godman Coll.

6. PELAGODROMA.

Type.

Pelagodroma, *Reichenbach, Av. Syst. Nat.* p. iv (1852); *Coues, Pr. Ac. Phil.* 1864, p. 87; *Forbes, Voy. Chall., Zool.* iv. pt. xi. p. 56, &c. (1882) ..... P. marina.

Hab. Southern Ocean, northwards in the Atlantic Ocean to the Canary Islands.

1. Pelagodroma marina.

Frigate Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 410; *id. Gen. Hist.* x. p. 189 (1824).

Procellaria marina, *Lath. Ind. Orn.* ii. p. 826 (1790); *Kuhl, Beitr.* p. 137 (1820); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 419 (1817); *id. Gal. Ois.* ii. p. 230, pl. 292 (1825); *Schl. Mus. P.-B.*, vi. Procell. p. 5 (1863).

Pachyptila marina, *Steph. in Shaw's Gen. Zool.* xiii. p. 253 (1826).

Oceanites marinus, *Keys. & Blas. Wirb. Eur.* p. xciii (1840); *Reid, Ibis*, 1888, p. 80.

Thalassidroma marina, *Gray, List Anseres Brit. Mus.* p. 161 (1844); *id. Gen. B.* iii. p. 648 (1844); *id. Voy. Ereb. & Terr., Birds*, p. 17 (1846); *id. Ibis*, 1872, p. 244; *Gould, Birds Austr.* vii. pl. 61 (1845); *Reich. Syst. Av., Suppl. Longip.* pl. xi. fig. 774 (1852); *Pelz. Reis. Novara, Zool.* i. *Vög.* p. 144 (1869); *Finsch, J. f. Orn.* 1870, p. 370; *Hutton, Cat. Birds N. Zeal.* p. 48 (1871); *id. Ibis*, 1872, p. 249.

Pelagodroma marina, *Reich. Av. Syst. Nat.* p. iv (1852); *Coues, Pr. Ac. Phil.* 1866, p. 192; *Salv. in Rowley's Orn. Misc.* i. p. 228 (1876); *id. P. Z. S.* 1878, p. 736; *id. Voy. Chall., Zool.* ii. pt. viii. p. 142 (1881); *Ridgw. Auk*, ii. p. 386; *id. Man. N. Am. Birds*,

p. 72 (1887); *A. O. U. Check-l. N. Am. Birds*, p. 106 (1886); *Buller, Birds N. Zeal.* ed. 2, ii. p. 248 (1888); *id. Tr. N. Zeal. Inst.* xxv. p. 81(1893); *Cheeseman, Tr. N. Zeal. Inst.* xxiii. p. 226 (1891); *H. A. Macph. Ibis*, 1891, p. 602; *Meade-Waldo, Ibis*, 1893, p. 207; *H. O. Forbes, Ibis*, 1893, p. 542; *Aplin, Ibis*, 1894, p. 212.

Thalassidroma hypoleuca, *Moquin-Tandon in Webb & Berth. Orn. Can.* p. 45 (1850?); *Bolle, J. f. Orn.* 1857, p. 346.

Pelagodroma fregata, *Bp. Consp. Av.* ii. p. 198 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 88, 91; *Gould, Handb. Birds Austr.* ii. p. 482 (1865); *Gigl. Faun. Vert. Oceano*, p. 38 (1870); *id. Viagg. 'Magenta,'* p. 736 (1875).

Procellaria fregata, *Schl. Mus. P.-B.*, vi. Procell. p. 5 (1863) (*nec Linn.*); *Gray, Hand-l.* iii. p. 104 (1871).

Thalassidroma fregata, *Buller, Birds N. Zeal.* p. 321 (1873); *id. Ibis*, 1874, p. 121; *Hutton, Ibis*, 1874, p. 42; *Finsch, J. f. Orn.* 1874, p. 212; *Sandager, Tr. N. Zeal. Inst.* xxii. p. 293 (1889).

Procellaria æquorea, *Solander* (cf. *Salv. in Rowley's Orn. Misc.* i. p. 238).

Adult. Upper surface slaty-brown, back paler and greyer, the feathers narrowly edged with white; rump and upper tail-coverts clear crimson, edged with white and with a narrow subterminal darker line to each feather; larger and median wing-coverts brown, the latter tipped with dirty white; forehead, an elongated superciliary stripe, the entire under surface, and under wing-coverts white; sides and tips of the under tail-coverts grey with white fasciæ; tail brownish black, basal half much paler: bill black; tarsi and toes black, the webs yellow with a dark edge. Total length about 8 inches, wing 5·8; tail, central rectrices 2·75, lateral rectrices 3·15; bill 0·9, tarsus 1·6, middle and outer toes 1·35, inner toe 1·1.

Hab. Seas of the Southern Hemisphere, north to the Canary Islands, and accidental in Great Britain and the coast of Massachusetts.

a–c. ♂; *d–l.* ♀ ad. sk.	Great Salvage I., April 1895.	W. R. Ogilvie-Grant, Esq. [P.].
m. ♂ ad. sk.	Orotava, Teneriffe, Mar. 20, 1887 (*S. G. Reid*).	Shelley Coll.
n–p. Ad. sk.	Nightingale Island, Oct. 17, 1873.	Voy. H.M.S. 'Challenger.'
q. ♂ ad. sk.	Enderby Island.	Mr. Oakley [P.].
r. Ad. sk.	South Indian Ocean, lat. 37° 30′ S., long. 42° E., Jan. 7.	J. Macgillivray [C.].
s. Pull. sk.	Wallaby I., Houtmann's Abrolhos, W. Australia, Jan. 1843 (*J. Gould*).	Salvin-Godman Coll.
t. Pull. st.	Wallaby I., W. Australia, Jan.	Gould Coll.
u, v. ♀ ad.; *w.* Pull. st.	Island off Cape Leeuwen, W. Australia, Dec. 1842.	Gould Coll.
x. ♂ ad. sk.	Otago, New Zealand, Oct. 1875.	Hume Coll.
y. Ad. sk.	[New Zealand.]	Salvin-Godman Coll.
z. ♀ ad. sk.	Chatham Islands (*Travers*).	Sharpe Coll.
a′. Ad. sk.	Auckland Islands.	Antarctic Exped.
b′. Ad. sk.		Salvin-Godman Coll.
c′, d′. Skeletons.	Australia.	
e′–l′. Skeletons.	Great Salvage I.	W. R. Ogilvie-Grant, Esq. [P.].

7. PEALEA.

Type.

Pealea, *Ridgw. Auk*, iii. p. 334 (1886); *id. Man. N. Am. Birds*, p. 56 (1887) ..... P. lineata.

Range. Certain islands of the Central Pacific Ocean.

1. Pealea lineata.

Thalassidroma lineata, *Peale, U.S. Expl. Exp.* viii. pp. 293, 337, pl. 79 (1848); *Cassin, U.S. Expl. Exp.* viii. ed. 2, p. 403, pl. 59 (1858); *Gray, Cat. Birds Trop. Isl. Pac.* p. 57 (1859); *Finsch & Hartl. Orn. Centralp.* p. 241 (1867); *Layard, P. Z. S.* 1876, p. 498.
Oceanites lineata, *Bp. Consp. Av.* ii. p. 200 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 83, 91.
Pealea lineata, *Ridgw. Auk*, iii. p. 334 (1886).

"*Male.* Head, neck, breast, and entire upper parts, except the upper tail-coverts, dark fuliginous, nearly black on the head above and back, lighter on the breast; upper tail-coverts white, every feather having a longitudinal and terminal line of dark fuliginous; feathers on the throat white at base; greater inferior wing-coverts light ashy or nearly white; tail-feathers white on their inner webs for about half their length; outer webs and terminal half of both webs dark fuliginous. Bill and legs, including the toe-membraues, blue-black, without spots; irides dark brown." (*Cassin.*)

Hab. Upolu Island.

The above is Cassin's description of Peale's type, now in the United States National Museum. There is another specimen in the Paris Museum.

8. CYMODROMA.

Type.

Fregetta, *Bp. Compt. Rend.* xli. p. 1113 (1855); *id. Consp. Av.* ii. p. 197 (1856) (*nec* Fregata, *Briss., Cuv. &c.*); *Coues, Pr. Ac. Phil.* 1864, p. 85; *Forbes, Voy. Chall., Zool.* iv. pt. xi. p. 56, &c. (1882).... C. melanogaster.
Cymodroma, *Ridgw. in Baird, Brewer, & Ridgw. Water-Birds N. Am.* ii. p. 418 (1884); *id. Man. N. Am. Birds*, p. 71 (1887) ..... C. melanogaster.

Range. Oceans of the Southern Hemisphere.

Key to the Species.

a. Smaller (wing about 7 inches); tail nearly even.
  a'. Middle of the abdomen sooty-black ..... *melanogaster*, p. 364.
  b'. Abdomen wholly white ..... *grallaria*, p. 366.
b. Larger (wing about 8 inches); tail deeply forked.
  c'. Throat, abdomen, and a narrow band across the rump white ..... *albigularis*, p. 367.
  d'. Entire plumage sooty-black..... *mœstissima*, p. 367.

1. Cymodroma melanogaster.

?? Procellaria fregatta, *Kuhl, Beitr.* p. 138 (1820).
Procellaria grallaria, *Licht. Verz. Doubl.* p. 83 (*fide Sharpe*).
Procellaria oceanica, *Bp. Zool. Journ.* iii. p. 89 (*nec Kuhl*) (*fide Sharpe*).
Thalassidroma melanogaster, *Gould, Ann. & Mag. N. H.* 1844, xiii.

p. 367; *id. Birds Austr.* vii. pl. 62 (1847); *Reich. Natat.* pl. cclxvii. figs. 2239–40 (1850); *Gray, Cat. Birds Trop. Isl. Pac.* p. 56 (1859); *id. Ibis*, 1862, p. 245; *Roch & Newton, Ibis*, 1863, p. 175; *Layard, Ibis*, 1863, p. 249; *id. Birds S. Afr.* p. 358 (1869); *id. Ibis*, 1867, p. 459; *Hutton, Ibis*, 1867, p. 189; *Sperling, Ibis*, 1868, pp. 283, 292, 1872, pp. 75, 76; *Hutton, Cat. Birds N. Zeal.* p. 48 (1871); *Buller, Birds N. Zeal.* p. 319 (1873); *id. Ibis*, 1874, p. 121; *Finsch, J. f. Orn.* 1870, p. 370; *id. op. cit.* 1874, p. 212; *Cab. & Reich. J. f. Orn.* 1876, p. 329; *Hartl. Vög. Madag.* p. 372 (1877); *Sandager, Trans. N. Zeal. Inst.* xxii. p. 293 (1890).

Thalassidroma tropica, *Gould, Ann. & Mag. N. H.* xiii. p. 366; *Gray, Cat. Birds Trop. Isl. Pac.* p. 56 (1859); *Milne-Edw. Ann. Sc. Nat., Zool.* 1882, p. 19; *Milne-Edw. & Grand. Hist. Mad., Ois.* p. 676 (1890).

Fregetta melanogaster, *Bp. Consp. Av.* ii. p. 198 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 87, 91; *Gould, Handb. Birds Austr.* ii. p. 479 (1865); *Hutton, Ibis*, 1869, p. 352; *id.* 1870, p. 396; *Gigl. Faun. Vert. Oceano*, p. 38 (1870); *Salv. P. Z. S.* 1878, p. 736; *id. Voy. Chall., Zool.* ii. pt. viii. p. 142 (1881); *Saund. P. Z. S.* 1880, p. 164; *Buller, Birds N. Zeal.* ed. 2, ii. p. 249 (1888); *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 79.

Procellaria melanogastra, *Schl. Mus. P.-B.*, vi. Procell. p. 6 (1863) (partim); *Gray, Hand-l.* iii. p. 104 (1871).

Procellaria tropica, *Gray, Hand-l.* iii. p. 104 (1871).

Oceanitis tropica, *Sharpe, Phil. Trans.* clxviii. p. 130 (1879); *id. Layard's Birds S. Afr.* p. 764 (1884).

Procellaria melanogaster?, *Penrose, Ibis*, 1879, p. 282.

Cymodroma melanogaster, *Ridgw. Man. N. Am. Birds*, p. 72 (1887).

Adult male. Sooty-black, head rather darker, greater wing-coverts much paler, margin of the wing indistinctly edged with pale sooty; base of the feathers of the throat and of the under tail-coverts, flanks, upper tail-coverts, and under wing-coverts white, breast and middle of the abdomen sooty; tail black, base of the lateral rectrices white: bill and legs black. Total length about 8 inches, wing 7, tail 3·2, bill 0·9, tarsus 1·6, middle and outer toes 1·03, inner toe 0·95.

Female. Similar to the male.

The amount of white on the throat varies, being almost pure in some specimens and quite concealed in others.

Hab. Southern Ocean northwards to the Bay of Bengal and in the Atlantic to the Tropic of Cancer.

a. Ad. sk.	North Atlantic, lat. 6° 33′ N., long. 18° 6′ W.	Gould Coll. (A type of *Th. tropica*, Gould.)
b. ♀ ad. sk.	North Atlantic, lat. 0° 12′ N., long. 30° W. (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
c. Ad. sk.	Bay of Bengal.	Tweeddale Coll.
d–f. Ad. sk.	Indian Ocean, lat. 36° 57′ S., long. 40° 41′ E., Oct. 15.	Earl of Crawford and Balcarres [P.].
g. Ad. sk.	Indian Ocean, lat. 32° 36′ S., long. 52° 58′ E., Oct. 19.	Earl of Crawford and Balcarres [P.].
h. Ad. sk.	S. Indian Ocean, lat. 43° S., long. 140° E. (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
i, j. ♂ ♀ ad. sk.	Royal Sound, Kerguelen Land (*Rev. A. E. Eaton*).	Transit of Venus Exped.

k. Ad. sk.	Betsy Cove, Kergnelen Land.	'Challenger' Exped.
l. Ad. sk.	Port Essington, N.W. Australia.	Salvin-Godman Coll.
m. Ad. sk.	Coast of Queensland.	Salvin-Godman Coll.
n–p. Ad. sk.	New Zealand.	Salvin-Godman Coll.
q. Ad. sk.	New Zealand (*Otago Museum*).	Hume Coll.
r. Ad. sk.	S. Africa (*C. J. Andersson*).	H. Saunders, Esq. [P.].

2. Cymodroma grallaria.

Procellaria grallaria, *Vieill. N. Dict. d'Hist. N.* xxv. p. 418 (1817); *id. Enc. Méth.* p. 344 (1823); *Licht. Verz. Doubl.* p. 83 (1823); *Schl. Mus. P.-B.*, vi. Procell. p. 5 (1863); *Gray, Hand-l.* iii. p. 104 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873).

Oceanites grallaria, *Keys. & Blas. Wirb. Eur.* p. xciii (1840): *Sharpe, P. Z. S.* 1881, p. 11.

Thalassidroma fregetta, *Gray, List Anseres Brit. Mus.* p. 161 (1844); *id. Gen. Birds*, iii. p. 548 (1844).

Thalassidroma grallaria, *Gray, Gen. B.* iii. p. 548 (1844).

Thalassidroma leucogaster, *Gould, Birds Austr.* vii. pl. 63 (1847); *Burm. Syst. Ueb. Th. Bras.* iii. p. 446 (1856): *Layard, Birds S. Afr.* p. 358 (1867); *Sperling, Ibis*, 1872, p. 75; *Coppinger, Cruise of the 'Alert,'* p. 87 (1883).

Fregetta grallaria, *Bp. Consp. Av.* ii. p. 197 (1856): *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 86, 91; *id. Key N. Am. Birds*, p. 330 (1872), ed. 2, p. 783 (1884); *id. Check-list N. Am. Birds*, p. 127 (1882); *id. Auk*, i. p. 81 (1884); *Gould, Handb. Birds Austr.* ii. p. 480 (1865); *Giyl. Faun. Vert. Oceano*, p. 38 (1870); *Salv. in Rowley's Orn. Misc.* i. pp. 229, 238 (1876); *id. P. Z. S.* 1878, p. 735; *id. Voy. Chall., Zool.* ii. pt. viii. p. 141 (1881); *Salvad. Orn. Pap.* ii. p. 459 (1882); *Nelson, Cruise 'Corwin,'* p. 113 (1883).

Thalassidroma segethi, *Phil. & Landb. An. Univ. Chile*, xviii. p. 29 (1861); *iid. Wiegm. Arch. f. Naturg.* 1860, p. 282.

Oceanites segethi, *Coues, Pr. Ac. Phil.* 1864, pp. 84, 91.

Oceanitis leucogaster, *Sharpe, ed. Layard's Birds S. Afr.* p 767 (1884).

Cymodroma grallaria, *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 419 (1884); *A. O. U. Check-l. N. Am. Birds*, p. 106 (1886); *Ridgw. Man. N. Am. Birds*, p. 72 (1887); *Towns. Pr. U.S. Nat. Mus.* xiii. p. 142 (1890).

The following references may belong to this species:—

Procellaria fregata, *Linn. Syst. Nat.* i. p. 212 (1766); *Gm. Syst. Nat.* i. p. 561 (1788); *Lath. Ind. Orn.* ii. p. 826 (1790); *Vieill. N. Dict. d'Hist. N.* xxv. p. 418 (1817); *id. Enc. Méth.* p. 76 (1823); *see Salv. in Rowley's Orn. Misc.* i. p. 238 (1876).

Pachyptila fregatta, *Steph. in Shaw's Gen. Zool.* xiii. p. 254 (1826).

Procellaria oceanica, *Steph. in Shaw's Gen. Zool.* xiii. p. 223 (1826); *cf. Coues, Pr. Ac. Phil.* 1866, p. 196.

Thalassidroma fregetta, *Lawr. Ann. Lyc. N. Y.* p. 117 (1851).

Fregetta lawrencii, *Bp. Consp. Av.* ii. p. 198 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Lawr. Birds N. Amer.* p. 832 (1860); *Coues, Pr. Ac. Phil.* 1864, pp. 87, 91; *id. op. cit.* 1866, p. 192; *Elliot, Birds N. Am.* i. Introd. (1869).

Procellaria melanogaster, *Schl. Mus. P.-B.*, vi. Procell. p. 6 (1863) (partim); *Scl. P. Z. S.* 1867, p. 336.

Adult male. Sooty-black; back and scapulars greyish, and each feather edged with white; rump, upper tail-coverts, and inner

under wing-coverts white; under tail-coverts as long as the rectrices, sooty; tail black, bases of the lateral rectrices white: bill and legs black. Total length about 7·4 inches, wing 6·5, tail 2·9, bill 0·8, tarsus 1·4, middle and inner toes 0·9, outer toe 0·92.

Female. Similar to the male.

Hab. Seas of the Southern hemisphere, north to the coast of Florida.

a, b.	Ad. sk.	Indian Ocean, lat. 37° 30′ S., long. 42° E., Jan., Feb.	J. Macgillivray [C.].
c.	Ad. st.	S. Australia.	Sir G. Grey [P.].
d.	Ad. sk.	S. Australia.	Sir G. Grey [P.].
e, f.	♂; *g–j.* ♀ ad. sk.	South Pacific Ocean, November.	'Challenger' Exped.
k.	♀ ad. sk.	S. Pacific Ocean off St. Ambrose I., July 20 (*Dr. Coppinger*).	Voy. of H.M.S. 'Alert.'
l.	Ad. sk.		Salvin-Godman Coll.

3. Cymodroma albigularis.

Procellaria tropica, *Bp. Compt. Rend.* xli. p. 4 (1855) (*nec Gould*); *Schl. Mus. P.-B.*, vi. Procell. p. 4 (1863).
Fregetta tropica, *Bp. Consp. Av.* ii. p. 197 (1856); *id. Compt. Rend.* xlii. p. 769 (1856) (*nec Gould*); *Coues, Pr. Ac. Phil.* 1864, p. 85.
Procellaria torquata, *Gray, Hand-l.* iii. p. 104 (1871) (*nec Macgill.*).
Thalassidroma albogularis, *Macgill. MS.*
Procellaria albigularis, *Finsch, P. Z. S.* 1877, p. 722; *Ramsay, Pr. Linn. Soc. N. S. W.* vii. p. 113.
Fregetta albogularis, *Salv. P. Z. S.* 1879, p. 130; *W. A. Forbes, Voy. Chall., Zool.* iv. pt. xi. p. 56 (1881); *Lister, P. Z. S.* 1891, pp. 295, 300; *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 79.
Cymodroma tropica, *Ridgw. Man. N. Am. Birds*, p. 72 (1887).

Adult male. Sooty-black, the greater wing-coverts a little paler; upper tail-coverts short, white, forming a narrow transverse band across the rump; throat and abdomen white; a broad pectoral band, a few spots on the flanks, and the ends of the longer under tail-coverts sooty; under wing-coverts sooty-white: bill and legs black. Total length about 8·75 inches, wing 8; tail, central rectrices 3·25, lateral rectrices 4·25; bill 0·8, tarsus 1·75, toes (nearly equal) 1·25.

Hab. South Pacific Ocean: New Hebrides, Phœnix Is., &c.

a, b.	♂ ad. sk.	Aneiteum, New Hebrides, Jan.	J. Macgillivray [C.].
c.	♂ ad. sk.	Aneiteum, Jan. (*J. Macgillivray*).	Gould Coll.
d.	♀ ad. sk.	Aneiteum, Jan. (*J. Macgillivray*).	Salvin-Godman Coll.
e.	♀ ad. sk.	Phœnix I., Phœnix Group, June 29.	J. J. Lister, Esq. [C.].
f.	♂ skeleton.	Aneiteum.	J. Macgillivray [C.].

4. Cymodroma mœstissima.

Fregetta mœstissima, *Salv. P. Z. S.* 1879, p. 130; *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 79.

Adult. Sooty-black, nearly uniform, the wings and tail a little blacker; no white markings whatever: bill and legs black. Total length about 9·5 inches, wing 9·1; tail, central rectrices 3·2, lateral rectrices 4·2; tarsus 1·9, toes (nearly equal) 1·3.

Hab. Samoa Islands.

a.	Ad. sk.	Samoa (*Rev. T. Powell*).	Salvin-Godman Coll. (Type of the species.)

Family II. PUFFINIDÆ.

Key to the Subfamilies.

a. Sides of the palate without lamellæ .... 1. *PUFFININÆ*, p. 368.
b. Sides of the palate with more or less distinctly developed lamellæ ..... 2. *FULMARINÆ*, p. 422.

Subfamily I. PUFFININÆ.

Key to the Genera.

a. Tarsi distinctly compressed, anterior edge sharp.
  a'. Nasal tube low; both nostrils visible from above, directed forwards and slightly upwards; rectrices 12..... 1. PUFFINUS, p. 368.
  b'. Nasal tubes higher; nostrils united into a single opening directed forwards.
    a''. Rectrices 12.
      a'''. Bill stouter; nasal tube comparatively short ..... 2. PRIOFINUS, p. 390.
      b'''. Bill weaker; nasal tube comparatively long ..... 3. THALASSŒCA, [p. 392.
    b''. Rectrices 14 ..... 4. PRIOCELLA, p. 393.
b. Tarsi not compressed, more rounded on the anterior edge; rectrices 12.
  c'. Tail moderate, rounded.
    c''. Bill long, stout, more or less yellow; unguis large; nasal tube almost united into a single opening directed forwards; claw of hallux small ..... 5. MAJAQUEUS, [p. 395.
    d''. Bill shorter, stout, black; unguis large; nasal opening directed slightly upwards; claw of hallux small ..... 6. ŒSTRELATA, [p. 397.
    e''. Bill slender, black; nasal tube high; unguis slender; claw of hallux large .. 7. PAGODROMA, [p. 419.
  d'. Tail long, cuneate; nasal tubes fleshy at the end, openings separate and directed forwards and upwards..... 8. BULWERIA, p. 420.

1. PUFFINUS.

Type.

Puffinus, *Brisson, Orn.* vi. p. 131 (1760); *Coues, Pr. Ac. Phil.* 1864, p. 127; *id. op. cit.* 1866, p. 192; *Ridgw. Man. N. Am. Birds*, p. 58 (1887). P. puffinus.
Nectris, *Kuhl, Beitr.* p. 144 (1820); *Coues, Pr. Ac. Phil.* 1864, p. 123.
Thyellas, *Gloger, in Froriep's Notizen*, xvi. p. 279 (1827); *Salv. Ibis*, 1888, p. 353.
Thiellus, *Gray, List Gen. Birds*, p. 78 (1840); *Bp. Consp. Av.* ii. p. 200 (1856); *Coues, Pr. Ac. Phil.* 1864, p. 122 ..... P. gravis.
Cymotomus, *Macgill. Man. Brit. B.* p. 13 (1842). P. anglorum.
Ardenna, *Reich. Av. Syst. Nat.* p. iv (1852).

Type.

Thyellodroma, *Stejn. Pr. U.S. Nat. Mus.* xi. p. 93 (1888) ..... P. sphenurus.
Zalias, *F. Heine, Nomencl. Mus. Hein.* p. 362 (1890) (*vice* Thiellus).
Shearwater, *Newton, Enc. Brit.* ed. 9, xxi.

Range. Generally distributed throughout the seas of the whole world.

Key to the Species.

a. Tail long, cuneate.
  a'. Under surface white; feathers of the head, sides of neck, and upper plumage generally sooty, edged conspicuously with white .. *leucomelas*, p. 370.
  b'. Under surface white; feathers of the head and upper plumage not edged with white.
    a''. Back, greater wing-coverts, and primaries entirely sooty ..... *cuneatus*, p. 371.
    b''. Back and greater wing-coverts grey; outer half of inner webs of primaries white..... *bulleri*, p. 371.
  c'. Entire plumage sooty-brown ..... *chlororhynchus*, p. 372.
b. Tail shorter, rounded.
  d'. Under surface white.
    c''. Larger: wing 12·5 inches and upwards.
      a'''. Back and upper tail-coverts conspicuously edged with light dusky; head above darker than the back of the neck.
        *a*⁴. Sides of the neck distinctly defined; flanks spotted; middle of the abdomen dusky ..... *gravis*, p. 373.
        *b*⁴. Sides of the neck mottled; flanks and middle of the abdomen white..... *kuhli*, p. 375.
      b'''. Upper surface nearly uniform, including the upper tail-coverts; sides of the head mottled ..... *creatopus*, p. 376.
    d''. Smaller: wing 9 inches and under.
      c'''. Primaries wholly dark beneath.
        *c*⁴. Larger.
          *a*⁵. Blacker above; axillaries white, subterminally black; flanks and under tail-coverts mostly white.. *anglorum*, p. 377.
          *b*⁵. Lighter above; axillaries, lower flanks, and under tail-coverts mostly pale sooty..... *yelkouanus*, p. 379.
        *c*⁵. Under tail-coverts deep sooty-black.
          *a*⁶. Paler; flanks and axillaries dusky *opisthomelas*, p. 380.
          *b*⁶. Darker; flanks and axillaries white..... *auricularis*, p. 380.
      *d*⁴. Medium size: axillaries blackish or dusky.
        *d*⁵. Under tail-coverts pure white; axillaries sooty..... *gavia*, p. 381.
        *e*⁵. Under tail-coverts sooty on the sides; axillaries blackish towards the end ..... *persicus*, p. 381.
      *e*⁴. Smaller: axillaries white ..... *obscurus*, p. 382.

d'''. Primaries beneath white on the inner edge of the inner web* ..... *assimilis*, p. 384.

e'. Plumage generally sooty.

e''. Larger: wing 12·5 inches and upwards.

e'''. Under wing-coverts sooty; bill, except at the tip, flesh-colour ..... *carneipes*, p. 385.

f'''. Under wing-coverts ashy white with dark shafts; bill dark ..... *griseus*, p. 386.

f''. Smaller: wing 10·4 inches and under.

g'''. Under surface greyer; tarsi and toes longer ..... *tenuirostris*, p. 388.

h'''. Under surface darker brown; tarsi and toes shorter ..... *nativitatis*, p. 389.

1. Puffinus leucomelas.

Puffinus leucomelas, *Temm. Pl. Col.* 587 (1836); *Temm. & Schl. Faun. Jap.* p. 131, pl. 85 (1842); *Gray, List Anseres Brit. Mus.* p. 160 (1844); *id. Gen. Birds*, iii. p. 647 (1844); *id. Hand-l.* iii. p. 102 (1871); *Reich. Av. Syst. Nat., Suppl. Longip.* pl. ix. fig. 767 (1850); *Jacq. & Puch. Voy. Pôle Sud*, iii. p. 138 (1853); *Bp. Consp. Av.* ii. p. 203 (1856); *Swinh. P. Z. S.* 1863, p. 330; *Coues, Pr. Ac. Phil.* 1864, pp. 130, 144; *Gigl. Faun. Vert. Oceano*, p. 33 (1870); *id. Viagg. 'Magenta,'* pp. 331, 332 (1875); *David & Oust. Ois. Chine*, p. 515 (1877); *Finsch, P. Z. S.* 1879, p. 16; *Meyer, Ibis*, 1879, p. 144; *Sharpe, P. Z. S.* 1881, p. 800; *Blakist. & Pryer, Trans. As. Soc. Jap.* x. p. 106 (1882); *Salvad. Orn. Pap.* iii. p. 461 (1882); *id. op. cit. Suppl.* p. 213 (1891); *Blakist. Amended List Birds Jap.* pp. 10, 35 (1884); *id. Pr. U.S. Nat. Mus.* ix. p. 655 (1886); *Pleske, Bull. Ac. Pétersb.* xxix. p. 539 (1884); *Seebohm, Ibis*, 1884, p. 176; *id. Birds Jap. Emp.* p. 264 (1890); *Ridgw. Man. N. Am. Birds*, p. 62 (1887).

Thiellus leucomelas, *Bp. Compt. Rend.* xlii. p. 769 (1856).

Procellaria leucomelas, *Schl. Mus. P.-B.*, vi. Procell. p. 24 (1863).

Adult male. Upper surface brown, the feathers of the body and wings with paler dusky edges; anterior portion of the crown, forehead, sides of the head, and neck white, each feather with a dark disc, which is narrow on the forehead and sides of the head and neck, giving a streaked appearance; entire under surface white; under wing-coverts white, the interior ones with dark shafts, those near the edge of the wing with dark discs; axillaries pure white; tail brown, the inner webs of the lateral rectrices near the base white; primaries black throughout: bill horn-colour; feet flesh-colour, the outer toe a little darker. Total length about 19 inches, wing 13; tail, outer rectrices 4, central rectrices 5·6.

Female. Similar to the male.

Hab. Seas of Japan and Corea and thence southwards to the Philippine Islands, N. Borneo, the Moluccas, and the N. coast of Australia.

a. ♂ ad. sk.	Port Hamilton, Corea, May (*G. Stephen*).	H. Saunders, Esq. [P.].
b. Ad. sk.	Japan (*H. J. Snow*).	Seebohm Coll.
c, d. ♂; *e*. ♀ ad. sk.	Hakodaté, Japan (*H. J. Snow*).	Salvin-Godman, Tweeddale, and Seebohm Colls.

* *Puffinus elegans* comes here.

f. Ad. sk.	Cataguan, Philippine Islands.	H. Cuming [C.].
g. Ad. sk.	Sandakan, N. Borneo (*H. B. Pryer*).	Salvin-Godman Coll.
h, i. Ad. sk.	Yokohama, Japan (*H. B. Pryer*).	Seebohm Coll.
j. Ad. sk.	Coast of N.E. Australia (*Cockerell*).	Salvin-Godman Coll.

2. Puffinus cuneatus.

Puffinus cuneatus, *Salvin, Ibis*, 1888, p. 353 (July); *Seeb. Ibis*, 1891, p. 191; *Stejn. Pr. U.S. Nat. Mus.* xii. p. 377 (1890); *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 80; *Wilson, Aves Hawaiienses*, part vi. (1892).

Puffinus knudseni, *Stejn. Pr. U.S. Nat. Mus.* xi. p. 93 (1888, Nov. 8).

Adult. Upper surface brown; crown, lower back, lesser wing-coverts, and primaries darker; feathers of the anterior part of the back broadly edged with paler brown; greater wing-coverts towards the margin tinged with grey; under surface white; sides of the neck mottled with grey; under tail-coverts dusky; under wing-coverts greyish white, edge of the wing dark; axillaries dusky grey: bill dark horn-colour; tarsi and toes yellowish, the outer toe darker. Total length about 17 inches, wing 11·8; tail, central rectrices 5·4, lateral rectrices 3·6; bill 2·2, tarsus 1·9, middle toe 2·32, outer toe 2·2, inner toe 1·9.

One of the types is greyer beneath, especially over the breast, flanks, and lower abdomen. The other type is exactly like the specimen in the Museum from the Sandwich Islands.

Hab. North Pacific Ocean from the Sandwich Islands to Volcano Island south of Japan.

a, b. Ad. sk.	Krusenstern Island, N. Pacific, spring of 1883 (*H. J. Snow*).	Salvin-Godman & Seebohm Colls. (Types of the species.)
c. ♀ ad. sk.	Sulphur I., Bonin Is., June 8, 1890 (*P. A. Holst*).	Seebohm Coll.
d, e. Ad. sk.	Hawaii (*Knudsen*).	Prof. Collett [P.].

3. Puffinus bulleri.

Puffinus bulleri, *Salvin, Ibis*, 1888, p. 354; *Buller, Birds N. Zeal.* ed. 2, ii. p. 240, pl. 41. fig. 2 (1888); *id. Tr. N. Z. Inst.* xxiii. p. 42 (1891).

Puffinus zealanicus, *Sandager, Tr. N. Z. Inst.* xxii. p. 291 (1890).

Adult. Upper surface dark grey, crown and back of the neck sooty-black, the lores and region below the eyes mottled with greyish white; lesser wing-coverts sooty-black; larger coverts grey and bordered with white; primaries outwardly black, two-thirds of the inner web white; under surface and under wing-coverts white; under tail-coverts white, with a grey edge; tail blackish, outer rectrices tinged with grey: bill dark horn-colour, the mandible beneath fleshy; tarsi and toes yellowish, outwardly dusky. Total length about 16·5 inches, wing 11·3; tail, central rectrices 5·2,

lateral rectrices 3·5; bill 2·6, tarsus 2, middle toe 2·35, outer toe 2·3, inner toe 2.

Hab. New Zealand.

a. Ad. sk.	New Zealand.	Salvin-Godman Coll. (One of the types of the species.)

4. Puffinus chlororhynchus.

Puffinus chlororhynchus, *Less. Traité d'Orn.* p. 612 (1831); *Gray, Gen. Birds*, iii. p. 647 (1844); *id. Ibis*, 1862, p. 244; *id. Hand-l.* iii. p. 103 (1871); *Puch. Rev. Zool.* 1850, p. 633; *E. Newton, Ibis*, 1861, p. 181, 1867, p. 359; *Hartl. Vög. Madag.* p. 369 (1877); *Sharpe, Phil. Trans.* clxviii. p. 467 (1879); *Legge, Birds Ceyl.* p. 1054 (1880); *Oates, Handb. Birds Burma*, ii. p. 439 (1883); *Milne-Edw. & Grand. Hist. Madag., Ois.* p. 680, pls. 297, 298 (1885); *Ridgw. Man. N. Am. Birds*, p. 62 (1887); *Salv. Ibis*, 1888, p. 352; *Buller, Birds N. Zeal.* ed. 2, ii. p. 235 (1888); *Cheeseman, Tr. N. Zeal. Inst.* xxiii. p. 226 (1891); *Lister, P. Z. S.* 1891, p. 300; *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 80; *Hutton, P. Z. S.* 1893, p. 749; *Buller, Tr. N. Zeal. Inst.* xxvii. p. 125 (1895).

Puffinus sphenurus, *Gould, Ann. & Mag. N. H.* xiii. p. 365 (1844); *id. Birds Austr.* vii. pl. 58 (1848); *Gray, Cat. Birds N. Guin.* p. 63 (1869); *id. Hand-l.* iii. p. 103 (1871); *Finsch & Hartl. Orn. Centralpol.* p. 245 (1867); *Salvad. Orn. Pap.* iii. p. 465 (1882); *id. op. cit. Suppl.* p. 213 (1891); *Pleske, Bull. Ac. Pétersb.* xxix. p. 539 (1884); *Crowfoot, Ibis*, 1885, p. 268; *Ridgw. Man. N. Am. Birds*, p. 62 (1887).

Le Pétrel chlororhynque, *Jacq. & Puch. Voy. Pôle Sud*, iii. p. 138 (1853).

Nectris gama, *Bp. Consp. Av.* ii. p. 202 (1856).

Thiellus chlororhynchus, *Bp. Compt. Rend.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 201 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 123, 142.

Thiellus sphenurus, *Bp. Compt. Rend.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 201 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 122, 142; *Gould, Handb. Birds Austr.* ii. p. 406 (1865).

Majaqueus sphenurus, *Rosenb. Nat. Tijdschr. Ned. Ind.* xxv. p. 256 (1863).

Procellaria sphenura, *Schl. Mus. P.-B.*, vi. Procell. p. 25 (1863).

Procellaria chororhyncha, *Schl. Mus. P.-B.*, vi. Procell. p. 25 (1863).

Puffinus ——?, *Legge, Stray F.* iii. p. 374 (1875).

Puffinus carneipes, *Cheeseman, Trans. N. Z. Inst.* xxiii. p. 226 (1891) (*apud Hutton*).

Adult male. Sooty-brown, the crown, hind neck, and wings darker; forehead and throat paler and greyer; entire under plumage, including under wing-coverts, paler sooty-brown: bill flesh-colour, the tip dark; tarsi and toes flesh-colour, the outer toe darker, especially at the joints of the phalanges. Total length about 17 inches, wing 11·6; tail, central rectrices 5, lateral rectrices 3·35; tarsus 1·8, middle and outer toes 2·25, inner toe 1·9.

Female like the male.

Hab. Indian Ocean, Australian and New Zealand Seas, and northwards to the Society Islands, Central Pacific.

a. Ad. sk.	Praslin, Seychelles.	Salvin-Godman Coll.
b. ♂ juv. sk.	Bird Island, Seychelles, March (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'

c. ♀ ad. sk.	Seychelles.	Shelley Coll.
d, *e*. ♂ ad. sk.	Mauritius (*de Robillard*).	Shelley Coll.
f, *g*. ♂ ♀ ad. sk.	Mauritius (*Bewshire*).	Shelley Coll.
h. Ad. sk.	Mauritius.	Gould Coll.
i, *j*. Ad. sk.	Mauritius.	Sharpe Coll.
k. Ad. st.	Bourbon.	E. Wilson [P.].
l, *m*. ♂ ♀ ad. sk.	Fouquet, Rodriguez I. (*H. H. Slater*).	Transit of Venus Exped.
n, *o*. ♂ ♀ ad. sk.	Raine's Islet, N. Australia, June 20.	J. Macgillivray [C.].
p. Ad. sk.	Raine's Islet.	J. B. Jukes [P.].
q. Ad. sk.	Bird Islet, N. Australia.	Gould Coll.
r, *s*. ♂ ♀ ad. sk.	Lord Howe's I., Sept. (*Sydney Mus.*).	Seebohm Coll.
t. ♀ ad. sk.	Lord Howe's I., Sept. (*J. Macgillivray*).	Gould Coll.
u. Ad. sk.	Norfolk I. (*W. M. Crowfoot*).	Salvin-Godman Coll.
v. Ad. sk.	Norfolk I.	E. Saunders [C.].
w. Ad. sk.	[Australia.]	Sharpe Coll.
x, *y*. Ad. sk.	[New Zealand.]	Salvin-Godman Coll.
z. Ad. sk.	Eimeo, Society Is. (*J. L. Green*).	Salvin-Godman Coll.
a', *b'*. Skeletous.	Rodriguez (*H. H. Slater*).	Transit of Venus Exped.
c'. Skull and leg-bones.	Rodriguez (*H. H. Slater*).	Transit of Venus Exped.

5. Puffinus gravis.

? Shearwater Petrel, var. A, *Lath. Gen. Syn.* iii. pt. 2, p. 407 (1785).

Procellaria gravis, *O'Reilly, Voy. to Greenland &c.* p. 140, pl. 12. fig. 1 (1818).

Procellaria major, *Faber, Prodr. Isl. Orn.* p. 56 (1822); *Schl. Mus. P.-B.*, vi. Procell. p. 27 (1863).

White-faced Petrel, *Lath. Gen. Hist.* x. p. 185 (1824).

Puffinus cinereus, *Nutt. Man., Water-Birds*, p. 334 (1834); *Aud. Orn. Biogr.* iii. p. 555 (1835); *id. Birds N. Am.* 8vo ed. vii. p. 212, pl. 456 (1844); *id. Birds Am.* pl. 283.

Nectris cinerea, *Keys. & Blas. Wirb. Eur.* pp. xciv, 239 (1840) (partim).

Puffinus major, *Temm. Man. d'Orn.* iv. p. 507 (1840); *W. Thompson, Ann. & Mag. N. H.* 1842, ix. p. 433; *Gray, List Anseres Brit. Mus.* p. 158 (1844); *id. Gen. Birds*, iii. p. 647 (1844); *id. Hand-l.* iii. p. 102 (1871); *Schl. Rev. Crit. Ois. Eur.* p. cxxxii (1844); *Reich. Av. Syst. Nat., Suppl. Longip.* pl. ix. fig. 770 (1850); *Kjærb. Orn. Dan., Suppl.* (2) pl. 7. fig. 1 (1854); *Thomps. Nat. Hist. Irel.* iii. p. 407 (1851); *Brehm, Naum.* 1855, p. 296; *id. Vogelf.* p. 356; *Bp. Consp. Av.* ii. p. 203 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Hewits. Eggs Brit. Birds*, ii. p. 516, pl. 144. fig. 3 (1856); *Hartl. Orn. W.-Afr.* p. 250 (1856); *Lawr. Birds N. Am.* p. 833 (1860); *D. Walker, Ibis*, 1860, p. 165; *Reinh. Ibis*, 1861, p. 16; *Bree, Birds Eur.* iv. p. 112, pl. (1863); *Newton in Baring Gould's Iceland*, p. 419 (1863); *Coues, Pr. Ac. Phil.* 1864, pp. 132, 144; *id. Key N. Am. Birds*, p. 331 (1872), ed. 2, p. 785 (1884); *id. Check-list N. Am. Birds*, p. 128 (1882); *Degl. & Gerbe, Orn. Eur.* ii. p. 376 (1867); *Taylor, Ibis*, 1869, pp. 388, 391; *v. Droste, J. f. Orn.* 1869, p. 382; *Gurney in Anders. Birds Damara-L.* p. 350 (1872); *Sel. & Salv. Nomencl.* p. 149 (1873); *Gould, Birds Gt. Brit.* v. pl. 88 (1873); *Allen, Bull. Mus. Comp. Zool. Cambr.* ii. p. 365 (1874); *Cordeaux, Ibis*, 1875, p. 187;

Dresser, Birds Eur. viii. p. 527, pl. 616 (1877); *Maynard, Birds E. N. Am.* p. 492 (1879); *Cory, Birds Bahama Is.* p. 218 (1880); *id. List Birds West Indies*, p. 34 (1885); *id. Auk*, v. p. 81 (1888); *id. Cat. West Ind. Birds*, p. 83 (1892); *Salv. Cat. Strickl. Coll.* p. 630 (1882); *B. O. U. List Brit. Birds*, p. 198 (1883); *Irby, Ibis*, 1883, p. 190; *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1882); *id. New Engl. Bird-Life*, ii. p. 383 (1883); *Saunders, ed. Yarr. Brit. Birds*, iv. p. 12 (1884); *id. Man. Brit. Birds*, p. 715 (1889); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 380 (1884); *Collins, Auk*, i. pp. 237, 381 (1884); *id. Ann. Rep. Comm. Fish & Fisheries for* 1882, pp. 311–338, pl. 1 (1884); *Brewster, Pr. Bost. Soc. N. H.* xxii. p. 404 (1884); *Turner, Pr. U.S. Nat. Mus.* viii. p. 253 (1885); *Seeb. Hist. Brit. Birds*, iii. p. 417, pl. 56 (1885); *Macph. Pr. R. Phys. Soc. Edinb.* ix. p. 141 (1886); *Swinburne, Pr. R. Phys. Soc. Edinb.* ix. p. 196 (1886); *A. O. U. Check-l. N. Am. Birds*, p. 100 (1886); *Ridgw. Man. N. Am. Birds*, p. 59 (1887); *id. Pr. U.S. Nat. Mus.* xii. p. 139 (1890); *Tait, Ibis*, 1887, p. 398; *Lilford, Coloured Fig. Birds Brit. Is.* pt. viii. (1888); *Palmer, Pr. U.S. Nat. Mus.* xiii. p. 256 (1890).

The Greater Shearwater, *Yarr. Brit. Birds*, iii. p. 502 (1843).

Adult male. Upper surface brown, crown darker, nape paler; the feathers of the body edged with pale brown, the ends of the longest tail-coverts whitish; under surface white, middle of the abdomen, some spots on the flanks, and the under tail-coverts sooty, the last edged with whitish; under wing-coverts white, the feathers near the edge of the wing dusky next the shaft on the outer web; quills white towards the base on the inner web; axillaries white, with dusky ends and white tips: bill dark horn-colour; tarsi and toes yellow, outwardly hazel. Total length about 19 inches, wing 12·7; tail, central rectrices 4·65, lateral rectrices 3·75; tarsus 2·3, middle toe 2·75, outer toe 2·6, inner toe 2·25.

Female like the male.

Hab. Atlantic Ocean from the Faeroe Islands and Greenland southwards to the Cape of Good Hope and the Falkland Islands.

a. ♀ ad. sk.	Faeroes, June 12, 1875 (*H. C. Müller*).	E. Hargitt [C.].
b. Ad. st.	Torquay, Devonshire.	C. Coningham, Esq. [P.].
c. Ad. st.	Polperro, Cornwall.	D. W. Mitchell, Esq. [P.].
d. ♂ ad. sk.	Fiskenæsset, Greenland, June 28.	E. Hargitt [C.].
e. ♂ ad. sk.	Lat. 44° 14′ N., long. 58° 03′ W., Aug. 2 (*Collins*: *Henshaw Coll.*).	Salvin-Godman Coll.
f, g. Ad. sk.	N. America.	Hudson's Bay Co. [P.].
h. Ad. sk.	S. Atlantic, lat. 36° 50′ S., long. 27° 5′ W., Feb. 13.	J. Macgillivray [C.].
i. Ad. sk.	Cape of Good Hope.	S.-African Museum.
j. Ad. st.	Cape of Good Hope.	Sir A. Smith [P.].
k. Ad. st.	Falkland Islands.	Antarctic Exped.
l. Ad. sk.		Salvin-Godman Coll.
m–p. Sterna.	"Europe."	Purchased.

6. Puffinus kuhli.

Le Puffin cendré, *Brisson, Orn.* vi. p. 134 (1760).
Le Puffin, *Buff. Pl. Enl.* 962.
Procellaria puffinus, *Temm. Man. d'Orn.* ii. p. 805 (1820); *Kuhl, Beitr.* p. 148 (1820).
Procellaria kuhli, *Boie, Isis*, 1835, p. 257.
Puffinus cinereus, *Gould, Birds Eur.* pl. 445; *Bp. Comp. List*, p. 64 (1838); *Temm. Man. d'Orn.* iv. p. 506 (1840); *Werner, Atlas, Suppl. Palmip.* pl. 36; *Crespon, Orn. Gard*, p. 498 (1840); *Gray, Gen. Birds*, iii. p. 647 (1844); *Schl. Rev. Crit. Ois. Eur.* p. cxxxii (1844); *Macgill. Hist. Brit. Birds*, v. p. 438 (1852); *Brehm, Naum.* 1855, p. 296; *id. Vogelf.* p. 356; *Bolle, J. f. Orn.* 1857, p. 344; *Jaub. & Barth.-Lapomm. Rich. Orn. Fr.* p. 381 (1858); *Jones, Nat. Bermuda*, p. 54 (1859); *Powys, Ibis*, 1860, p. 357; *Drouët, Faun. Açor.* p. 127 (1861); *Wright, Ibis*, 1863, p. 436, 1864, p. 153; *Bree, B. Eur.* iv. p. 109, pl. (1863); *Krüper, J. f. Orn.* 1863, p. 336; *Loche, Expl. Sci. Algér., Ois.* ii. p. 174 (1867); *Degl. & Gerbe, Ois. Eur.* ii. p. 375 (1867); *Doderl. Avif. Sicil.* p. 228 (1869); *Elwes & Buckl. Ibis*, 1870, p. 336; *Saund. Ibis*, 1871, p. 401; *Brooke, Ibis*, 1873, p. 348; *Arévalo, Aves de Esp.* p. 405 (1887).
Nectris cinerea, *Keys. & Blas. Wirb. Eur.* pp. xciv, 239 (1840) (partim); *Mühle, Orn. Griechenl.* p. 135 (1844); *Linderm. Vögel Griechenl.* p. 170 (1860); *Borggr. Vogelf.* p. 140 (1869).
Procellaria flavirostris, *Gould, Ann. & Mag. N. H.* xiii. p. 365 (1844); *Gray, Gen. Birds*, iii. p. 648 (1844).
Puffinus kuhli, *Bp. Consp. Av.* ii. p. 202 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 128, 143; *id. Key N. Am. Birds*, p. 331 (1872), ed. 2, p. 784 (1884); *id. Check-l. N. Am. Birds*, p. 128 (1882); *Salvad. Atti Soc. Ital. Sc. Nat.* vi. p. 132 (1864); *id. Faun. Ital., Ucc.* p. 298 (1871); *Pelzeln, Voy. Novara, Zool.* i. *Vög.* p. 142 (1869); *Gray, Hand-l.* iii. p. 102 (1871); *Shelley, Birds Egypt*, p. 311 (1872); *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Heugl. Orn. N.O.-Afr.* ii. p. 1367 (1873); *Irby, Birds Gibr.* p. 217 (1875); *id. op. cit.* ed. 2, p. 308 (1895); *Dresser, Birds Eur.* viii. p. 513, pl. 615 (1877); *E. C. Taylor, Ibis*, 1878, p. 374; *Sharpe, Phil. Trans.* clxviii. p. 122 (1879); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 377 (1884); *Saunders, Ibis*, 1884, p. 392; *Turner, Pr. U.S. Nat. Mus.* viii. p. 253 (1885); *Whitehead, Ibis*, 1885, p. 47; *Tait, Ibis*, 1887, p. 398; *Ridgw. Man. N. Am. Birds*, p. 59 (1887); *Reid, Ibis*, 1888, p. 80; *Lilford, Ibis*, 1889, p. 349; *Grant, Ibis*, 1890, p. 444; *Koenig, J. f. Orn.* 1890, p. 461; *Meade-Waldo, Ibis*, 1893, p. 267; *Scl. Ibis*, 1894, p. 107.
Adamastor flavirostris, *Bp. Consp. Av.* ii. p. 188 (1855).
Nectris macrorhyncha, *Heugl. Syst. Ueb.* p. 68 (1856).
Œstrelata flavirostris, *Bp. Compt. Rend.* xlii. p. 768 (1856).
Procellaria cinerea, *Schl. Mus. P.-B.*, vi. Procell. p. 24 (1863).
Puffinus major, *Godman, Ibis*, 1866, pp. 103, 107; *id. Nat. Hist. Azores*, pp. 39, 42 (1870); *Loche, Expl. Sci. Algér., Ois.* ii. p. 173 (1867).
Puffinus borealis, *Cory, Bull. Nutt. Orn. Club*, vi. p. 84 (1881); *Job, Bull. Nutt. Orn. Club*, viii. p. 244; *Stearns, New Engl. Bird-Life*, ii. p. 384 (1883); *Coues, Key N. Am. Birds*, ed. 2, p. 784 (1884); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 379 (1884); *Baird, Auk*, iv. p. 72 (1887); *A. O. U. Check-l. N. Am. Birds*, p. 100 (1886); *Ridgw. Man. N. Am. Birds*, p. 59 (1887); *Swinburne, Pr. R. Phys. Soc. Edinb.* ix. p. 193 (1886); *Chadburne,*

Auk, v. p. 203 (1888) ; *Dutcher, Auk,* v. pp. 170, 173 (1888), vi. p. 128 ; *Maynard, Quart. Journ. Bost. Zool. Soc.* iii. p. 53 ; *Rives, Auk*, v. p. 108 (1889).

Cinereous Puffin, *Nutt. Man., Water-Birds,* p. 334 (1834).

Adult male. Greyish brown, darker and more uniform on the crown ; the feathers of the back edged with paler grey, the longer upper tail-coverts whitish or mottled ; wings and tail dark brownish black ; under surface white, the cheeks and sides of the neck pale grey, mottled with white ; under tail-coverts white, mottled at the edge ; under wing-coverts white, the edge of the wing dark greyish brown ; axillaries nearly pure white : bill yellow, the tip yellowish horn-colour ; tarsi and toes yellow, darker outwardly. Total length about 20 inches, wing 14 ; tail, central rectrices 5·35, lateral rectrices 3·9 ; bill 2·7, tarsus 2·3, middle toe 2·9, outer toe 2·85, inner toe 2·4.

Female like the male.

Hab. Mediterranean Sea ; Atlantic Ocean from Madeira and Canaries to the coast of Massachusetts ; Kerguelen Island.

a. Ad. sk.	Sea of Marmora (*Robson*).	Tweeddale Coll.
b. Pull. sk.	Cyclades (*Dr. Krüper*).	Seebohm Coll.
c. Pull. sk.	Cyclades (*Dr. Krüper*).	Baron A. von Hügel.
d, e. Ad. st.	Italy.	Purchased.
f. Ad. sk.	Corsica.	J. Whitehead, Esq. [P.].
g. ♂ ad. sk.	Malaga (*R. Mena*).	Col. Irby [P.].
h. ♂ ; *i.* ♀ ad. sk.	Deserta Grande, May 4, 1890.	W. R. Ogilvie-Grant, Esq. [P.].
j–m. ♂ ♀ ad. sk.	Great Salvage I., April 23–26, 1895.	W. R. Ogilvie-Grant, Esq. [P.].
n. ♀ ad. sk.	Lime I., Porto Santo, April 11, 1895.	W. R. Ogilvie-Grant, Esq. [P.].
o. ♀ ad. sk.	Off Gay Head, N. Am., Oct. (*H. W. Henshaw*).	Salvin-Godman Coll.
p. ♂ ad. sk.	Chatham, Mass., Oct. 11 (*C. B. Cory*).	Salvin-Godman Coll.
q–s. ♀ ad. sk.	Wood's Holl, Mass., Sept. (*H. W. Henshaw*).	Salvin-Godman Coll.
t. Ad. sk.	Azores (*F. D. Godman*).	Salvin-Godman Coll.
u, v. Ad. sk.	Kerguelen Land.	Antarctic Exped.
w. Ad. st.		Purchased ?
x–b'. Skeletons & various bones.	Great Salvage Is.	W. R. Ogilvie-Grant, Esq. [P.].

7. Puffinus creatopus.

Puffinus creatopus, *Coues, Pr. Ac. Phil.* 1864, pp. 131, 144 ; *id. op. cit.* 1866, p. 192 ; *id. Key N. Am. Birds,* p. 331 (1872), ed. 2, p. 785 (1884) ; *id. Check-list N. Am. Birds,* p. 128 (1882) ; *Elliot, B. N. Am.* i. Introd. (1869) ; *Salv. Ibis,* 1875, p. 376 ; *id. P. Z. S.* 1883, p. 431 ; *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 230 ; *id. Man. N. Am. Birds,* p. 59 (1887) ; *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 383 (1884) ; *Cooper, Auk,* iii. p. 125 ; *A. O. U. Check-l. N. Am. Birds,* p. 101 (1886) ; *Loomis, Pr. Cal. Ac. Sc.* ser. 2, v. p. 217 (1895).

Adult male. Upper surface dark greyish brown, nearly uniform, the feathers of the back being very indistinctly edged with a paler

shade of colour; upper tail-coverts uniform with the back; under surface white, sides of the neck and flanks mottled with grey, under tail-coverts greyish brown; under wing-coverts white mottled with grey; axillaries grey, white at the base and tipped with white: bill yellowish, the tip horn-colour; tarsi and toes yellow, rather darker on the outside. Total length about 20 inches, wing 13; tail, central rectrices 4·4, lateral rectrices 3·8; bill 2·5, tarsus 2·15, middle toe 2·6, outer toe a trifle shorter, inner toe 2·2.

Female like the male.

Hab. West coast of America from California to the coast of Chili.

a. ♂ ad. sk.	Corral, Chili, Nov. 6 (*A. A. Lane*).	H. Berkeley-James, Esq. [P.].
b. ♂ ad. sk.	Coquimbo Bay, Chili, Nov. (*A. H. Markham*).	Salvin-Godman Coll.
c–g. Ad. sk.	Juan Fernandez I., coast of Chili (*E. C. Reed*).	Salvin-Godman Coll.

8. Puffinus anglorum.

Procellaria anglorum, *Ray, Syn.* p. 134 (1713); *Briss. Orn.* vi. p. 131 (1760); *Temm. Man. d'Orn.* ii. p. 806 (1820); *Werner, Atlas, Palmip.* pl. —; *Hewits. Eggs Brit. Birds*, ii. p. 458, pl. 131. fig. 2 (1846); *Schl. Mus. P.-B.*, vi. Procell. p. 28 (1863).

The Puffin of the Isle of Man, *Edwards, Gleanings Nat. Hist.* iii. p. 313, pl. 359 (1764).

Le Puffin, *Briss. Orn.* vi. p. 131 (1760).

Procellaria puffinus, *Brünn. Orn. Bor.* p. 29 (1764); *Linn. Syst. Nat.* i. p. 213 (1766); *Gm. Syst. Nat.* i. p. 566 (1788); *Lath. Ind. Orn.* ii. p. 824 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 421 (1817); *Baikie & Heddle, Hist. Nat. Orc.* p. 95 (1848).

Shearwater, *Penn. Arct. Zool.* ii. p. 535; *id. Brit. Zool.* ii. no. 208; *Bewick, Hist. Brit. Birds*, ii. p. 246 (1804).

Shearwater Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 406 (1785); *Nutt. Man., Water-birds*, p. 336 (1834).

Le Pétrel Puffin, *Buff. Hist. Nat. Ois.* x. p. 159 (1786); *D'Aub. Pl. Enl.* 962.

Mank's Shearwater, *Lath. Gen. Hist. Birds*, x. p. 184 (1824).

Nectris anglorum, *Kuhl, Beitr.* p. 146 (1820); *Keys. & Blas. Wirb. Eur.* pp. xciv, 239 (1840); *Borggr. Vogelf.* p. 140 (1869).

Puffinus anglorum, *Boie, Isis*, 1822, p. 562; *Steph. in Shaw's Gen. Zool.* xiii. p. 226, pl. 26 (1826); *Brehm, Vög. Deutschl.* p. 807 (1831); *Schinz, Naturg. Vög.* p. 400, pl. 136 (1832); *Aud. Orn. Biogr.* iii. p. 620 (1835); *id. Birds Am.* pl. 299; *id.* 8vo ed. vii.p. 214,pl. 457; *Bp. Comp. List*, p. 64 (1838); *id. Consp. Av.* ii. p. 203 (1856); *id. Compt. Rend.* xlii. p. 769 (1856); *Fritsch, Vög. Eur.* pl. 61. fig. 2; *Gould, Birds Eur.* v. pl. 443 (1837); *id. Birds Great Brit.* v. pl. 84 (1873); *Nordm. in Démid. Voy.* iii. p. 282 (1840); *Crespon, Orn. Gard*, p. 499 (1840); *Selys, Faun. Belge*, p. 157 (1842); *Gray, List Anseres Brit. Mus.* p. 159 (1844); *id. Gen. Birds*, iii. p. 647 (1844); *id. Cat. Brit. Birds*, p. 223 (1863); *id. Hand-l.* iii. p. 102 (1871); *Reich. Av. Syst. Nat., Suppl. Longip.* pl. ix. figs. 765–766 (1850); *Thomps. Nat. Hist. Irel.* iii. p. 409 (1851); *Macgill. Hist. Brit. Birds*, v. p. 441 (1852); *Brehm, Naum.* 1855. p. 296; *id. Vogelf.* p. 356; *Harcourt, Ann. & Mag. N. H.* 1855, xv. p. 435; *Lawr. Birds N. Am.* p. 834 (1860); *Reinh. Ibis*, 1861, p. 16;

Newton in Baring-Gould's Iceland, p. 419 (1863); *Coues, Pr. Ac. Phil.* 1864, pp. 134, 144; *id. Key N. Am. Birds*, p. 331 (1872), ed. 2, p. 786 (1884); *id. Check-list N. Am. Birds*, p. 128 (1882); *More, Ibis*, 1865, p. 458; *Godm. Ibis*, 1866, pp. 104, 107; *id. Nat. Hist. Azores*, pp. 39, 42 (1870); *Turnbull, Birds of E. Lothian*, p. 35 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 378 (1867); *Elwes, Ibis*, 1869, p. 35; *Taylor, Ibis*, 1869, p. 391; *v. Droste, J. f. Orn.* 1869, p. 382; *R. Gray, Birds W. Scotland*, p. 503 (1871); *Irby, Birds Gibr.* p. 217 (1875), ed. 2, p. 309 (1895); *id. Ibis*, 1883, p. 190; *Dresser, Birds Eur.* viii. p. 517, pl. 615 (1876); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 230 (1881); *B. O. U. List Brit. Birds*, p. 197 (1883); *Stearns, New Engl. Bird-Life*, ii. p. 384 (1883); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 384 (1884); *Saunders, ed. Yarr. Brit. Birds*, iv. p. 21 (1884); *id. Man. Brit. Birds*, p. 719 (1889); *Seeb. Hist. Brit. Birds*, iii. p. 420, pl. 56 (1885); *id. Ibis*, 1890, p. 408; *Dixon, Ibis*, 1885, pp. 94, 361; *Reid, Ibis*, 1885, p. 254, 1888, p. 80; *Booth, Rough Notes Brit. Birds*, iii. p. — (1886); *Arévalo, Aves de Esp.* p. 406 (1887); *Tait, Ibis*, 1887, p. 397; *Stevens. Birds Norf.* iii. p. 365 (1890); *Koenig, J. f. Orn.* 1890, p. 462; *Borrer, Birds Sussex*, p. 283 (1891); *Buckl. & H.-Brown, Vert. Faun. Orkn.* p. 242 (1891); *Meade-Waldo, Ibis*, 1893, p. 206; *Lilford, Birds Northamptonshire*, p. 412 (1893).

Puffinus arcticus, *Faber, Prodr. Isl. Orn.* p. 156 (1822); *Brehm, Vög. Deutschl.* p. 806 (1831); *Naum. Vög. Deutschl.* x. p. 618, pl. 277. figs. 1, 2 (1840); *Schl. Rev. Crit. Ois. Eur.* p. cxxxi (1844); *id. Vog. Nederl.* i. p. 584, pl. 332; *id. Dier. Nederl. Vog.* pl. 33. fig. 4 (1861); *Kjærb. Orn. Dan.* pl. 51 A. fig. 3 (1851); *Bp. Compt. Rend.* xlii. p. 769 (1856); *Salvad. Atti Soc. Ital. Sc. Nat.* vi. p. 133 (1864); *Collett, Norges Fugle*, p. 76 (1868).

Thalassidroma anglorum, *Sw. Classif. Birds*, ii. p. 374 (1837).

Nectris puffinus, *Keys. & Blasius, Wirb. Eur.* p. xciv (1840).

Cymotomus anglorum, *Macgill. Man. Brit. Orn.* ii. p. 13 (1842).

Manx Shearwater, *Yarr. Brit. Birds*, iii. p. 508 (1843).

Puffinus puffinus, *A. O. U. Check-l. N. Am. Birds*, p. 100 (1886); *Ridgw. Man. N. Am. Birds*, p. 60 (1887).

Adult male. Upper surface slaty-black, nearly uniform; under surface white, the sides of the neck and of the throat below the eye mottled grey and white, a few dark grey marks on the flanks; the outer under tail-coverts outwardly dark; under wing-coverts white; axillaries white, dark towards the end, the tips white; quills black: bill dark horn-colour; tarsus and toes fleshy, outwardly dark. Total length about 15 inches, wing 9; tail, central rectrices 3, lateral rectrices 2·6; bill 1·8, tarsus 1·75, middle and outer toes 1·8, inner toe 1·45.

Female. Similar to the male.

Young. Covered with greyish-brown down, becoming nearly white on the under surface.

Hab. North Atlantic Ocean south to the coast of Brazil.

a. ♂ ad. sk.	Frisian Is. (*H. Durnford*).	Salvin-Godman Coll.
b. Pull. sk.	Frisian Is. (*H. D.*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Faeroe Is., June 8 (*H. W. Feilden*).	J. A. Harvie-Brown, Esq. [P.].
d–f. Pull. sk.	Faeroe Is., June (*H. C. Müller*).	E. Hargitt, Esq. [P.].
g–i. Pull. st.	Hoy, Orkney Is.	Purchased.

j. Ad. sk.; *k*. Pull. sk.	Orkney Is. (*Dunn*).	Gould Coll.
l. ♀ ad. sk.	St. Kilda, June 12 (*C. Dixon*).	Seebohm Coll.
m. Pull. st.	Eigg I., W. Scotland.	Rev. H. A. Macpherson [P.].
n. Ad. sk.	Hastings (*R. Swinhoe*).	Seebohm Coll.
o. Ad. st.	Torquay, Devonshire.	C. Coningham, Esq. [P.].
p. Ad. st.	Scilly Islands.	D. W. Mitchell, Esq. [P.]
q. ♂ ad. sk.	Pembrokeshire.	Col. Lambton [P.].
r. ♂ ad. sk.	St. Bride's, S. Wales.	Hon. W. Edwardes [P.].
s. ♀ ad. sk.	Rathlin I., Ireland, May 24 (*H. Saunders*).	Seebohm Coll.
t, *u*. Ad. sk.	Waterford, Ireland.	R. Ussher, Esq. [P.].
v. Ad. sk.	British Seas.	Montagu Coll.
w–*y*. Ad. sk.	British Seas.	Seebohm & Hume Colls.
z. ♂ ad. sk.	Christchurch, Hants.	E. Hart, Esq. [P.].
a'. ♂, *b'*. ♀ ad. sk.	Flores, Azores (*F. D. G.*).	Salvin-Godman Coll.
c'. ♀ ad. sk.	Barra Grande, Sept. 22, 1883.	H. Saunders, Esq. [P.].
d'–*i'*. Sterna.	"Europe."	Purchased.

9. Puffinus yelkouanus.

Procellaria yelkouan, *Acerbi, Bibl. Ital.* cxl. p. 294 (1827); *Bull. Sc. Nat.* xvi. p. 463 (1829); *Schl. Mus. P.-B.*, vi. Procell. p. 29 (1863).

Puffinus yelkouan, *Bp. Consp. Av.* ii. p. 205 (1856); *Salvad. Atti Soc. Ital. Sc. Nat.* vi. p. 133 (1864); *Coues, Pr. Ac. Phil.* 1864, pp. 137, 144; *Degl. & Gerbe, Orn. Eur.* ii. p. 379 (1867); *Doderlein, Avif. Mod. e Sic.* p. 228 (1869); *Elwes & Buckley, Ibis*, 1870, p. 336; *Salvad. Faun. Ital., Ucc.* p. 299 (1871); *Scl. & Taylor, Ibis*, 1876, p. 61; *Taylor, Ibis*, 1878, p. 374; *Whitehead, Ibis*, 1885, p. 48.

Puffinus baroli, *Bonelli, fide Bp. Compt. Rend.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 204 (1856); *Gray, Hand-l.* iii. p. 103 (1871).

Puffinus anglorum, *Costa, Faun. Reg. Nap., Ucc.* p. 72 (1857); *Krüper, J. f. Orn.* 1863, p. —; *Wright, Ibis*, 1863, p. 438, 1864, p. 153, 1874, p. 240; *Tristr. P. Z. S.* 1864, p. 454; *id. Faun. & Fl. Palest.* p. 138 (1884); *Tacz. J. f. Orn.* 1870, p. 55; *Saund. Ibis*, 1871, p. 401; *Shelley, Birds Egypt*, p. 311 (1872); *Brooke, Ibis*, 1873, p. 348; *Heugl. Orn. N.O.-Afr.* ii. p. 1370 (1873); *Gigl. Ibis*, 1881, p. 217; *Salv. Cat. Strickl. Coll.* p. 631 (1882); *Seeb. Ibis*, 1883, p. 36; *Radde, Orn. Cauc.* p. 488 (1884).

Puffinus sp. inc., *Lilford, Ibis*, 1887, p. 263, 1889, p. 349.

Adult male. Very similar to *P. anglorum*, the upper surface paler and browner; the flanks and under tail-coverts usually dusky brown; the axillaries brown towards their ends; the tarsi and toes longer. Total length about 15 inches, wing 9; tail, central rectrices 2·75, lateral rectrices 2·6; bill 1·9, tarsus 1·8, middle and outer toes 1·95, inner toe 1·55.

Hab. Mediterranean Sea, straying northwards to the coasts of Devonshire and Cornwall.

a. ♂ ad. sk.	Bosphorus, Mar. 9 (*Robson*).	Tweeddale Coll.
b, c. ♂; *d, e*. ♀ ad. sk.	Bosphorus, Mar. 18.	Sharpe Coll.
f, g. Ad. sk.	Bosphorus (*W. Pearce*).	Salvin-Godman Coll.
h. ♂; *i*. ♀ ad. sk.	Vourla Bay, Nov. 16 (*C. G. Danford*).	Salvin-Godman Coll.
j. ♂ ad. sk.	Smyrna Bay, Nov. 18 (*C. G. D.*).	Seebohm Coll.
k. ♂ ad. sk.	Foot of Mount Carmel.	Canon Tristram [C.].
l. Ad. sk.	Damietta, Egypt (*Filipponi*).	Shelley Coll.
m, n. Ad. st.	Egypt.	Purchased.
o–t. Ad. sk.	Croatia.	Prof. Brusina [P.].
u. Ad. sk.	Corsica.	J. Whitehead, Esq. [P.].
v. Ad. sk.	Algiers, Feb. 24.	Shelley Coll.
w. Ad. sk.	Oran, Mar. 6.	Shelley Coll.
x. Ad. ? sk.	Torbay, Devonshire, Aug. 1875 (*J. E. Harting*).	Salvin-Godman Coll.
y. Ad. ? sk.	Plymouth Sound, Devonshire, 1875 (*J. Gould*).	Salvin-Godman Coll.
z, a'. Ad. sk.	[Mediterranean.]	Purchased.

10. Puffinus opisthomelas.

Puffinus opisthomelas, *Coues, Pr. Ac. Phil.* 1864, pp. 139, 144; *id. Check-l. N. Am. Birds*, p. 128 (1882); *id. Key N. Am. Birds*, p. 331 (1872), ed. 2, p. 786 (1884); *Elliot, Birds N. Am.* i. Introd. (1868).
Puffinus gavia, *Ridgw. Pr. U.S. Nat. Mus.* iii. pp. 12, 230 (1880); *id. Man. N. Am. Birds*, p. 60 (1887); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 389 (1884); *A. O. U. Check-l. N. Am. Birds*, p. 101 (1886); *W. E. Bryant, Pr. Cal. Ac. Sc.* (2) ii. p. 87 (1890); *Loomis, Pr. Cal. Ac. Sc.* ser. 2, v. p. 216 (1895).

Upper surface, wings, and tail sooty-black (as in *P. obscurus*); sides of the head dark far below the eye, and with no definite line of demarcation between the dark colour and the white of the under surface, the former becoming gradually greyer and more mingled with white; no white on either eyelid, and no light superciliary line; under wing-coverts white, bend of the wing mottled with the colour of the back; axillaries blackish towards their ends; flanks sooty-black; under tail-coverts black: nasal tubes and culmen blackish; sides of the bill yellowish or reddish brown, the unguis light bluish white; inner surface and part of the outer of the tarsus, middle and inner toes, and webs light yellowish flesh-colour, rest of the tarsus and toes brownish black. Total length of wing 9 inches, tail 3·75; bill, culmen 1·4, from gape 2; tarsus 1·8, middle toe and claw 2·1.

Hab. Coast of California, Cape San Lucas.

There are no specimens of this species in the Collection. The above description is compiled from that of Dr. Coues.

11. Puffinus auricularis.

Puffinus auricularis, *Towns. Pr. U.S. Nat. Mus.* xiii. p. 133 (1890).

Similar to *P. opisthomelas* in general appearance. Bill and feet

smaller, upper surface darker, nearly black; black of the sides of the head extending below the eye to a line with the mouth, the edge not sharply defined but blended by small dark spots; flanks and axillaries pure white: under tail-coverts black. Total length about 12·5 inches, wing 9·2, tail 3·15, bill from gape 1·5, tarsus 1·8, middle and outer toes with claw 1·9, inner toe 1·6.

Hab. Clarion Island, coast of Mexico.

One of the typical specimens of this distinct species has been kindly lent me by the authorities of the United States National Museum. Though allied to *P. opisthomelas*, it seems to be separable by several characters.

12. Puffinus gavia.

Procellaria gavia, *Forst. Descr. An.* p. 148 (1844); *Gray, Voy. Ereb. & Terror*, i. p. 18 (1846); *id. Cat. B. Trop. Isl. Pac.* p. 56 (1859); *id. Ibis*, 1862, p. 246; *Finsch, J. f. Orn.* 1870, p. 373; *Hutton, Ibis*, 1872, p. 83, 1874, p. 42.

Æstrelata gavia, *Coues, Pr. Ac. Phil.* 1866, pp. 154, 171; *Gigl. & Salvad. Ibis*, 1869, p. 56; *Layard, Ibis*, 1878, p. 264.

Puffinus gavia, *Hutton, Ibis*, 1867, p. 189; *id. Cat. Birds N. Z.* p. 45 (1871); *Buller, Birds N. Zeal.* p. 318 (1873); *id. Ibis*, 1874, p. 120; *id. Birds N. Zeal.* ed. 2, ii. p. 236 (1888); *id. Trans. N. Z. Inst.* xxiii. p. 42 (1891); *id. op. cit.* xxiv. p. 86 (1892); *id. op. cit.* xxv. p. 80 (1893); *id. op. cit.* xxvii. p. 124 (1895); *Finsch, J. f. Orn.* 1874, p. 208; *Reischek, Trans. N. Zeal. Inst.* xviii. p. 93 (1886); *Sandager, Trans. N. Z. Inst.* xxii. p. 289 (1889); *Salv. Ibis*, 1888, p. 356; *id. P. Z. S.* 1891, p. 627; *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 81.

Puffinus opisthomelas, *Finsch, J. f. Orn.* 1870, p. 371.

Adult. Upper surface slaty-black, nearly uniform; under surface, including the whole of the under tail-coverts, pure white; sides of the head and neck mottled with grey, the region below the eye and the lores being dark: under wing-coverts white to the edge of the wing, axillaries dusky, whiter at the base and the tips white, quills dark throughout: bill dark horn-colour; tarsi inwardly yellow, outwardly dark, outer toe dark, the rest yellow. Total length about 12 inches, wing 8; tail, central rectrices 2·4, lateral rectrices 2·3; bill 1·9, tarsus 1·7, middle toe 1·8, outer toe a trifle shorter, inner toe 1·5.

Hab. New Zealand and Australian Seas.

a.	Ad. sk.	Adelaide, Australia.	Adelaide Museum.
b.	Ad. sk.	Victoria Park, Sydney, N.S.W. (*F. J. Bourne*).	Prof. Anderson Stuart, M.D. [P.].
c.	Ad. sk.	Hauraki Gulf, New Zealand.	Sir Walter Buller [P.].

13. Puffinus persicus. (Plate IV.)

Puffinus persicus, *Hume, Stray F.* i. p. 5 (1873), v. p. 292 (1877), viii. p. 115 (1879); *Blanf. Ibis*, 1873, p. 215; *Barnes, Ibis*, 1893, p. 175.

Adult female. Closely allied to *P. obscurus*, but rather browner

on the upper surface, the bill longer and stouter, and the axillaries sooty for nearly the whole of their length, the tips being white. Total length about 12 inches, wing 7·8; tail, central rectrices 2·9, lateral rectrices 2·45; tarsus 1·5, middle toe 1·7, outer toe 1·65, inner toe 1·4.

Hab. Persian Gulf.

a. ♀ ad. sk.	Open sea between Gwadar and Muscat, Feb. 21, 1872 (*A. O. H.*).	Hume Coll.	(Type of the species.)
b. ♀ ad. sk.	Mekran Coast, May 17, 1877 (*Capt. Butler*).	Hume Coll.	

14. Puffinus obscurus.

Cahow, *Smith, Hist. Virg.* (1629); *Purchas, Pilgr.* (1738).

Dusky Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 416 (1785); *id. Gen. Hist. Birds*, x. p. 197 (1824); *Nutt. Man. Water-Birds N. Am.* p. 337 (1834).

Procellaria obscura, *Gm. Syst. Nat.* i. p. 559 (1788); *Lath. Ind. Orn.* ii. p. 825 (1790); *Bechst. in Lath. Uebers.* iii. p. 364, iv. p. 500; *Vieill. N. Dict. d'Hist. Nat.* xvii. p. 423 (1817); *id. Enc. Méth.* p. 81 (1823); *id. Gal. Ois.* ii. p. 230, pl. 301 (1825); *Temm. Man. d'Orn.* ii. p. 808 (1820); *Werner, Atlas, Palmip.* pl. —; *Kuhl, Beitr.* p. 147 (1820); *Gould, Birds Eur.* pl. 444; *Jacq. & Puch. Voy. Pôle Sud*, iii. p. 125 (1853); *Schl. Mus. P.-B.*, vi. Procell. p. 30 (1863); *Bryant, Pr. Bost. Soc. N. H.* xi. p. 98 (1867); *Pollen & Van Dam, Faun. Madag., Ois.* p. 144 (1868).

Puffinus obscurus, *Steph. in Shaw's Gen. Zool.* xiii. p. 230 (1826); *Aud. Orn. Biogr.* iii. p. 620 (1835); *id. Birds N. Am.* pl. 299; *id.* 8vo ed. vii. p. 99, pl. 458 (1844); *Gould, Birds Eur.* v. pl. 443 (1837); *Bp. Comp. List*, p. 64 (1838); *id. Compt. Rend.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 204 (1856); *Fritsch, Vög. Eur.* pl. 61. fig. 1; *Gray, List Anseres Brit. Mus.* p. 160 (1844); *id. Gen. Birds*, iii. p. 647 (1844); *id. Cat. Birds Trop. Isl. Pac.* p. 55 (1859); *id. Cat. Brit. Birds*, p. 223 (1863); *id. Hand-l.* iii. p. 103 (1871); *Yarr. Hist. Brit. Birds, Suppl.* p. 67 (1845); *Schl. Rev. Crit. Ois. Eur.* p. cxxxiii (1844); *id. Vog. Nederl.* i. p. 535, pl. 333; *Brehm, Naum.* 1855, p. 296; *id. Vogelf.* p. 356 (1856); *Harcourt, Ann. & Mag. N. H.* 1858, xv. p. 436; *Jaub. & Barth.-Lapomm. Rich. Orn. Fr.* p. 382 (1858); *Stev. Zool.* 1858, p. 6096; *id. Trans. Norf. & Norw. Nat. Hist. Soc.* iii. p. 467; *id. P. Z. S.* 1882, p. 321; *Jones, Nat. Bermuda*, pp. 55, 93 (1859); *Bryant, Pr. Bost. Soc. N. H.* vii. p. 132 (1860); *Lawr. Birds N. Am.* p. 835 (1860); *Coues, Pr. Ac. Phil.* 1864, pp. 137, 144; *id. Key N. Am. Birds*, p. 331 (1872), ed. 2, p. 786 (1884); *id. Check-list N. Am. Birds*, p. 128 (1882); *Verr. in Vinson's Voy. Madag.*, Annexe B, p. 4 (1865); *Godman, Ibis*, 1866, pp. 104, 107; *id. Nat. Hist. Azores*, pp. 39, 42 (1870); *Loche, Expl. Sci. Algér., Ois.* ii. p. 175 (1867); *Degl. & Gerbe, Ois. Eur.* ii. p. 380 (1867); *Baird, Ibis*, 1867, p. 285; *Finsch & Hartl. Faun. Centralpol.* p. 245 (1867); *iid. P. Z. S.* 1872, p. 110; *E. Newton, Ibis*, 1867, p. 359; *Hutton, Ibis*, 1869, p. 352; *Pelz. Ibis*, 1873, p. 47; *Blanf. Ibis*, 1873, p. 215; *id. E. Persia*, ii. p. 295 (1876); *Finsch, J. Mus. Godeffr.* xii. p. 40 (1876); *id. P. Z. S.* 1877, pp. 782, 786, 1880, p. 577; *id. J. f. Orn.* 1880, pp. 295, 309; *id. Ibis*, 1880, p. 430, 1881, pp. 109, 113; *Hartl. Vög. Madag.* p. 370 (1877); *Scl. P. Z. S.* 1879, p. 705; *Salv. P. Z. S.* 1879, p. 131; *id. op. cit.*

1883, p. 431 ; *id. Ibis*, 1888, p. 357 ; *Maynard, Birds E. N. Am.* p. 492 (1879) ; *Cory, Birds Bahamas*, p. 219 (1880) ; *id. Birds Haiti*, p. 184 (1885) ; *B. O. U. List Brit. Birds*, p. 198 (1883) ; *Milne-Edw. & Grand. Hist. Madag., Ois.* p. 683 (1885) ; *Saunders, ed. Yarr. Brit. Birds*, iv. p. 27 (1884) ; *id. Man. Brit. Birds*, p. 721 (1889) ; *Seeb. Hist. Brit. Birds*, iii. p. 425, pl. 56 (1885) ; *Ridgw. Man. N. Amer. Birds*, p. 61 (1885) ; *Arevalo, Aves de Esp.* p. 406 (1887) ; *Buller, Birds N. Zeal.* ed. 2, ii. p. 238 (1888) ; *Reid, Ibis*, 1888, p. 80 ; *Southw. in Stevenson's Birds Norf.* iii. p. 367 (1890) ; *Grant, Ibis*, 1890, p. 444 ; *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 79 ; *Irby, Birds Gibr.* ed. 2, p. 309 (1895).

Nectris obscura, *Keys. & Blas. Wirb. Eur.* pp. xciv, 239 (1840) ; *Mühle, Orn. Griechenl.* p. 136 (1844) ; ? *Heugl. Syst. Ueb.* p. 68 (1856) ; *Linderm. Vög. Griechenl.* p. 171 (1860) ? ; *Borggr. Vogelf.* p. 140 (1869).

Puffinus dichrous, *Finsch & Hartl. Faun. Centralpol.* p. 244 (1867) ; *iid. P. Z. S.* 1872, p. 108 ; *Finsch, J. Mus. Godeffr.* viii. p. 44 (1875) ; *Lister, P. Z. S.* 1891, p. 300.

Puffinus ophisthomelas, var. minor, *Hartl. P. Z. S.* 1867, p. 832.

Puffinus opisthomelas, *Finsch & Hartl. P. Z. S.* 1868, pp. 9, 118 ; *iid. Cat. Mus. Godeffr.* iv. p. 7 (1869).

Puffinus auduboni, *Finsch, P. Z. S.* 1872, p. 111 ; *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 12 (1880) ; *id. Man. N. Am. Birds*, p. 60 (1887) ; *Gundl. J. f. Orn.* 1881, p. 400 ; *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 386 (1884) ; *A. O. U. Check-l. N. Am. Birds*, p. 101 (1886) ; *Cory, List Birds West Ind.* p. 34 (1885) ; *id. Auk*, v. p. 181 (1887), vi. p. 81 (1888) ; *id. Cat. West Ind. Birds*, p. 83 (1892) ; *Dutcher, Auk*, vi. p. 173 (1888) ; *Feilden, Ibis*, 1889, pp. 60, 503 ; *Lawr. Auk*, 1889, p. 19.

Puffinus tenebrosus, *Natt., Pelz. Ibis*, 1873, p. 47 ; *Finsch, J. Mus. Godeffr.* xii. p. 40 (1876) ; *Ridgw. Man. N. Am. Birds*, p. 60 (1887) ; *Towns. Pr. U.S. Nat. Mus.* xiii. p. 142 (1890).

Adult. Upper surface slaty-black, nearly uniform ; under surface white, reaching nearly to the orbit of the eye, where the feathers as well as those of the sides of the neck are mottled ; under tail-coverts blackish brown, tipped with white, the shorter central feathers white ; under wing-coverts white, the margin of the wing dusky, quills black throughout ; axillaries white (or sometimes slightly mottled near the end) : bill dark hazel, paler on the mandible ; outside of the tarsus and outer toe black, the rest yellow. Total length about 12 inches, wing 7·8 ; tail, central rectrices 3·2, lateral rectrices 2·7 ; bill 1·5, tarsus 1·5, middle toe 1·65, outer toe 1·6, inner toe 1·3. (Manua Is., Samoan Group.)

Sexes alike.

Specimens vary as to the amount of the dark colouring on the under tail-coverts, the darkest specimens in this respect before me are those from the Pelew Islands. In none are they entirely white. I see no grounds for separating the birds from the Atlantic, Indian, and Pacific Oceans, though various attempts have been made to discriminate them. The type of *P. obscurus* came from the mid-Pacific Ocean.

Hab. Tropical and Subtropical Seas of the whole world. A rare

straggler to the coasts of Great Britain, and not common on those of New Zealand.

a. Ad. sk.	[Said to have been shot in Devonshire (*J. Gould*).]	Salvin-Godman Coll.
b. ♂ ad. sk.	Bourbon I.	
c. ♀ ad. sk.	Cousine I., Seychelles.	Shelley Coll.
d. Juv. sk.	Aneiteum, N. Hebrides, Jan. 18.	J. Macgillivray [C.].
e. Ad. sk.	Pelew Is. (*Cohen*).	Salvin-Godman Coll.
f, *g*. Ad. sk.	Pelew Is.	— Cohen, Esq. [P.].
h. Ad. sk.	Manua, Samoa Is. (*T. Powell*).	Salvin-Godman Coll.
i–*m*. Ad. et pull. sk.	Tau I., Samoa Group (*Mrs. T. B. Cusack-Smith*).	Salvin-Godman Coll.
n. Ad. sk.	[New Zealand.]	Salvin-Godman Coll.
o. Ad. sk.	Charles Is., Galapagos Is., Feb. 1880 (*A. H. Markham*).	Salvin-Godman Coll.
p. Ad. sk.	Montserrat, W. Indies (*Sturge*).	Salvin-Godman Coll.
q, *r*. Ad. sk.		Capt. Kellett & Lieut. Wood [P.].

s. Skeleton.

15. Puffinus assimilis.

Puffinus assimilis, *Gould*, *P. Z. S.* 1837, p. 156; *id. Birds Austr.* vii. pl. 59 (1848); *Gray*, *List Anseres Brit. Mus.* p. 159 (1844); *id. Gen. Birds*, iii. p. 647 (1844); *id. Ibis*, 1862, p. 244; *id. Hand-l.* iii. p. 103 (1871); *Bp. Compt. Rend.* xlii. p. 769 (1856); *Coues*, *Pr. Ac. Phil.* 1866, p. 192; *Hutton*, *Trans. N. Zeal. Inst.* i. p. 161 (1868); *id. Ibis*, 1872, p. 248; *id. P. Z. S.* 1893, p. 750; *Hartl. & Finsch*, *P. Z. S.* 1872, p. 111; *Pelz. Ibis*, 1873, p. 49; *Salv. Cat. Strickl. Coll.* p. 631 (1882); *Crowfoot*, *Ibis*, 1885, p. 269; *Reischek*, *Tr. N. Zeal. Inst.* xviii. p. 95 (1886); *Ridgw. Man. N. Am. Birds*, p. 61 (1887); *Salv. Ibis*, 1888, p. 357; *Buller*, *Birds N. Zeal.* ed. 2, ii. p. 239 (1888); *id. Tr. N. Zeal. Inst.* xxv. p. 80 (1893); *id. op. cit.* xxvii. p. 125 (1895); *Sandager*, *Trans. N. Z. Inst.* xxii. p. 290 (1890); *Cheeseman*, *Tr. N. Z. Inst.* xxii. p. 226 (1891); *Lister*, *P. Z. S.* 1891, p. 300; *Wiglesworth*, *Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 80.

Puffinus nugax, *Solander MS.*, *Bp. Consp. Av.* ii. p. 205 (1856); *Coues*, *Pr. Ac. Phil.* 1864, pp. 141, 144; *Gould*, *Handb. Birds Austr.* ii. p. 458 (1865); *Finsch & Hartl. Faun. Centralp.* pp. 242, 280, pl. 3. fig. 5 (1867); *Layard*, *Ibis*, 1876, p. 393 (?); *id. P. Z. S.* 1876, pp. 498, 506; *Moseley*, *Notes Nat. Chall.* p. 522 (1879).

Puffinus bailloni, *Bp. Compt. Rend.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 205 (1856); *Gray*, *Hand-l.* iii. p. 103 (1871).

Procellaria nugax, *Schl. Mus. P.-B.*, vi. Procell. p. 31 (1863).

Puffinus obscurus, *Finsch*, *J. f. Orn.* 1870, p. 370; *Grant*, *Ibis*, 1890, p. 444.

Puffinus —— ?, *Hartl. & Finsch*, *P. Z. S.* 1872, p. 112; *Finsch*, *J. Mus. Godeffr.* viii. p. 45 (1875).

Adult female. Upper surface slaty-black, rather bluer than in *P. obscurus*; under surface, including the under tail-coverts, pure white, extending over the lower part of the lores and close to the orbit of the eye, the dividing line on the sides of the neck being more definite than in *P. obscurus*; under wing-coverts up to the edge of the wing and the outer portion of the inner web of the primaries white except towards the tip: bill black; tarsi and toes blackish, the webs yellow. Total length about 10·5 inches, wing 7·4;

tail, central rectrices 2·65, lateral rectrices 2·6; bill 1·4, tarsus 1·5, middle toe 1·5, outer toe 1·62, inner toe 1·3.

Sexes alike.

Hab. Australian and New Zealand Seas, and northwards in the Atlantic Ocean to Deserta Grande near Madeira.

a. Ad. st.	Madeira.	R. T. Evers, Esq. [P.].
b, *c*. Ad. sk.	Madeira.	Gould Coll.
d, *e*. ♂ ♀ ad. sk.	Deserta Grande, May 4, 1890.	W. R. Ogilvie-Grant, Esq. [P.].
f–*l*. Juv. et pull. sk.	Porto Santo, May 7, 1890.	W. R. Ogilvie-Grant, Esq. [P.].
m–*p*. Pull. sk.	Lime I., Porto Santo, April 11, 1895.	Hon. C. Baring and W. R. Ogilvie-Grant, Esq. [P.].
q–*w*. ♂ ♀ pull. sk.	Great Salvage I., April 24–27, 1895.	Hon. C. Baring and W. R. Ogilvie-Grant, Esq. [P.].
x, *y*. Ad. sk.	Australia.	Sir Thomas Mitchell [P.].
z. Ad. sk.	Australia.	Gould Coll.
a'. Ad. sk.	W. Australia.	A. J. Campbell, Esq. [P.].
b'. Ad. sk.	Norfolk I. (*W. M. Crowfoot*).	Salvin-Godman Coll.
c'. ♂ ad.; *d'*. ♀ ad. sk.	Raoul or Sunday I., Kermadec Group, July 1854.	J. Macgillivray [C.].
e'–*h'*. Skeleton & bones.	Great Salvage I.	W. R. Ogilvie-Grant, Esq. [P.].

16. Puffinus elegans.

Puffinus elegans, *Gigl. & Salvad. Ibis*, 1869, p. 67; *iid. Atti Soc. Ital. Sc. Nat.* xi. p. 457; *Gigl. Faun. Vert. Oceano*, p. 32 (1870); *id. Viagg. 'Magenta,'* pp. 98, 106 (1875); *Salv. in Rowley's Orn. Misc.* i. p. 256, pl. 34 (1876); *Ridgw. Man. N. Am. Birds*, p. 61 (1887).

"*P.* supra ex toto cinereo-plumbeis, plumis totis angustissime limbatis; tectricibus alarum mediis, majoribus ac remigibus secundariis albo limbatis, fascias tres trans alam formantibus; subtus, tectricibus alæ inferioribus remigibusque intus candidis; capitis ac colli lateribus albo-cinereo mixtis; cauda brevi ex toto cinereo-plumbea; tarsis postice nigris, supra cærulescentibus, palamis albidis, unguibus nigris; rostro tenui, cærulescente, culmine et apice nigris; iride brunnea. Long. tota circa 11·5, alæ 7·3, caudæ 2·7, rostri a fronte 1·07, a rictu 1·4, tarsi 1·7, dig. med. cum ungue 1·95." (*Giglioli & Salvadori* ut supra.)

Hab. South Atlantic Ocean.

No further information has transpired respecting this species. It is possible that it may be referable to *P. assimilis*, the type being a young bird.

17. Puffinus carneipes.

Puffinus carneipes, *Gould, P. Z. S.* 1844, p. 57; *id. Birds Austr.* vii. pl. 57 (1848); *Gray, Gen. Birds*, iii. p. 647 (1844); *Seeb. Ibis*, 1884, p. 176; *id. Birds Jap. Emp.* p. 265 (1890); *Blakiston, Amended List Jap. Birds*, pp. 21, 36 (1884); *id. Pr. U.S. Nat.*

Mus. xiii. p. 635 (1886); *Ridgw. Man. N. Am. Birds*, p. 62 (1887); *Salv. Ibis*, 1888, p. 355; *Buller, Birds N. Zeal.* ed. 2, ii. p. 234 (1888); *id. Tr. N. Zeal. Inst.* xxv. p. 60 (1893); *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 80.

Nectris carneipes, *Bp. Consp. Av.* ii. p. 201 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 126, 143; *Gould, Handb. Birds Austr.* ii. p. 465 (1865).

Priofinus carneipes, *Bp. Compt. Rend.* xlii. p. 769 (1856).

Puffinus (Nectris) carneipes, *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 139 (1877).

? Kuril Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 399 (1785); *id. Gen. Hist. Birds*, x. p. 173 (1824).

Procellaria æquinoctialis, var. *β*, *Lath. Ind. Orn.* ii. p. 821 (1790).

Adult. Dark sooty-brown, nearly uniform, slightly paler beneath and greyer on the throat; under wing-coverts and axillaries uniform sooty-brown: bill flesh-colour, the tip horn; tarsi and toes flesh-colour. Total length about 19·5 inches, wing 12·5; tail, central rectrices 4·3, lateral rectrices 3·65; tarsus 2·25, middle toe 2·7, outer toe a trifle shorter, inner toe 2·2.

Hab. Australian and New Zealand Seas, and northwards to the Japanese Seas.

a, b. ♂ ad.; *c, d.* ♀ ad. sk.	Hakodaté, Japan, May 19 (*F. Ringer*).	Salvin-Godman and Seebohm Colls.
e. Ad. sk.	Norfolk I.	E. Saunders [P.].

18. Puffinus griseus.

Grey Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 399 (1785); *id. Gen. Hist.* x. p. 174 (1824).

Nectris fuliginosa, *Solander, MS.*; *Parkinson, Icon. ined.* no. 23 [*nec* Procellaria fuliginosa, *Kuhl, Beitr.* p. 142 = Œstrelata macroptera: *cf. Salv. in Rowley's Orn. Misc.* i. p. 238 (1876)]; *Keys. & Blas. Wirb. Eur.* pp. xciv, 239 (1840); *Bp. Consp. Av.* ii. p. 201 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 123, 143; *Elliot, Birds N. Am.* pl. 62. fig. 1 (1868); *Borggr. Vogelf. Norddeutschl.* p. 140 (1869).

Procellaria grisea, *Gm. Syst. Nat.* i. p. 564 (1788); *Lath. Ind. Orn.* ii. p. 821 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 419 (1817); *id. Enc. Méth.* p. 75 (1823); *Kuhl, Beitr.* p. 144 (1820).

Procellaria fuliginosa, *G. Forster, Icon. ined.* no. 94.

Daption griseum, *Steph. in Shaw's Gen. Zool.* xiii. p. 246 (1826).

Puffinus fuliginosus, *A. Strickland, P. Z. S.* 1832, p. 129; *Schl. Rev. Crit. Ois. Eur.* p. cxxxii(1844); *Lawr. Birds N. Am.* p. 834 (1860); *Degl. & Gerbe, Orn. Eur.* ii. p. 381 (1867); *Baird, Ibis*, 1867, p. 285; *Gray, Hand-l.* iii. p. 102 (1871); *Coues, Key N. Am. Birds*, p. 332 (1872), ed. 2, p. 787 (1884); *id. Check-list N. Am. Birds*, p. 128 (1882); *Blakiston & Pryer, Trans. As. Soc. Jap.* x. p. 106 (1882); *Stearns, New Engl. Bird-Life*, ii. p. 385 (1883); *id. Pr. U.S. Nat. Mus.* vi. p. 122 (1883); *Brewster, Pr. Bost. Soc. N. H.* xxii. p. 405 (1883).

Puffinus cinereus, *Gould, B. Eur.* v. pl. 444. fig. 2 (1837).

Puffinus tristis, *J. R. Forster, Descr. An.* p. 23 (1844); *Gray, Ibis*, 1862, p. 244; *id. Hand-l.* iii. p. 103 (1871); *Finsch, J. f. Orn.* 1870, p. 371; *id. Ibis*, 1888, p. 309; *Hutton, Cat. Birds N. Zeal.* p. 45 (1871); *id. Ibis*, 1872, pp. 83, 248; *Buller, Birds N. Zeal.* p. 317 (1873); *Hamilton, Tr. N. Zeal. Inst.* xviii. p. 128 (1886); *Sandager, Trans. N. Z. Inst.* xxii. p. 290 (1890).

Puffinus major, *Gray, Voy.* 'Erch. & Terr.' i. *Birds*, p. 17 (1846).
Nectris fuliginosus et chilensis, *Bp. Consp. Av.* ii. p. 202 (1856).
Puffinus carneipes (*nec Gould*), *Schl. Mus. P.-B.*, Procell. vi. p. 26 (1863); *Scl. P. Z. S.* 1867, p. 336.
Nectris amaurosoma, *Coues, Pr. Ac. Phil.* 1864, pp. 124, 143; *id. Key N. Am. Birds*, ed. 2, p. 787 (1884); *Elliot, N. Am. Birds*, pl. 62. fig. 2 (1868); *Scl. & Salv. Ibis*, 1870, p. 500; *iid. Nomencl. Av. Neotr.* p. 149 (1873); *Hutton, Ibis*, 1872, p. 83; *Tacz. Orn. Pér.* iii. p. 463 (1886).
Puffinus amaurosoma, *Gigl. Faun. Vert. Oceano*, p. 34 (1870); *id. Viagg.* 'Magenta,' pp. 844, 861 (1875); *Coues, Key N. Am. Birds*, p. 332 (1872); *id. Check-list N. Am. Birds*, p. 129 (1882).
Puffinus griseus, *Finsch, J. f. Orn.* 1874, p. 209; *Salv. in Rowley's Orn. Misc.* i. p. 236 (1876); *id. P. Z. S.* 1883, p. 431; *id. Ibis*, 1888, p. 355; *Dresser, Birds Eur.* viii. p. 523, pl. 616 (1877); *Ridgw. Pr. U.S. Nat. Mus.* iii. pp. 12, 230, v. p. 534; *id. Man. N. Am. Birds*, p. 61 (1887); *Bryant, Pr. Cal. Ac. Sc.* (2) ii. p. 87; *Bocage, Orn. Angola*, p. 516 (1881); *B. O. U. List Brit. Birds*, p. 198 (1883); *Southwell, Ibis*, 1883, p. 228; *Saund. P. Z. S.* 1884, p. 150; *id. ed. Yarr. Brit. Birds*, iv. p. 17 (1884); *id. Man. Brit. Birds*, p. 717 (1889); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 391 (1884); *Sharpe, ed. Layard's Birds S. Afr.* p. 770 (1884); *Blakiston, Amend. List Jap. Birds*, pp. 21. 35 (1886); *id. Pr. U.S. Nat. Mus.* ix. p. 655 (1887); *Seeb. Ibis*, 1884, p. 33; *id. Hist. Brit. Birds*, iii. p. 427 (1885); *id. Birds Jap. Emp.* p. 266 (1890); *Swinborne, Pr. R. Phys. Soc. Edinb.* ix. p. 197 (1886); *A. O. U. Check-l. N. Am. Birds*, p. 101 (1886); *Tait, Ibis*, 1887, p. 398; *Buller, Birds N. Zeal.* ed. 2, ii. p. 232 (1888); *id. Trans. N. Zeal. Inst.* xxiv. p. 66 (1892); *id. op. cit.* xxvii. p. 124 (1895); *Stevens. Birds Norf.* iii. p. 364 (1890); *Borrer, Birds Sussex*, p. 282 (1891); *H. O. Forbes, Ibis*, 1893, p. 542; *Aplin, Ibis*, 1894, p. 212; *Loomis, Pr. Cal. Ac. Sc.* ser. 2, v. p. 217 (1895).
Puffinus stricklandi, *Ridgw. in Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 390 (1884); *Cooper, Auk*, iii. pp. 125, 402; *Ridgw. Auk*, iii. p. 267 (1886); *id. Man. N. Am. Birds*, p. 61 (1887); *Turner, Pr. U.S. Nat. Mus.* viii. p. 253 (1885); *A. O. U. Check-l. N. Am. Birds*, p. 101 (1886); *W. Palmer, Pr. U.S. Nat. Mus.* xiii. p. 257 (1890).

Adult male. Sooty-brown, darker on the head, lower back, wings and tail, the feathers of the back very indistinctly edged with a paler shade; greater wing-coverts a little greyer; under surface greyer, the throat and breast paler; quills dark sooty-black; under wing-coverts greyish white, each feather with a dark shaft: bill horn-colour; tarsi and toes dark hazel. Total length about 18 inches, wing 12; tail, central rectrices 3·5, lateral rectrices 2·7; bill 2·1, tarsus 2·4, middle and outer toes 2·6, inner toe 2·1.

Female like the male.

Hab. Generally distributed throughout the seas of both hemispheres from the Faeroe Islands in the North Atlantic and the Kurile Islands in the North Pacific to the Straits of Magellan and the Auckland Islands in the south.

a. ♀ ad. sk. Faeroes, Aug. 1873 (*H. C. Müller*). E. Hargitt, Esq. [P.].
b. Ad. sk. Plymouth Sound, Devonshire coast (*J. Gould*). Salvin-Godman Coll.

c. Ad. sk.	S. Africa.	S.-African Mus.
d, e. Ad. sk.	Kurile Islands (*H.J.Snow*).	Seebohm Coll.
f, g. ♀ ad. sk.	Kurile Is. (*H. J. S. Blakiston Coll.*).	Seebohm Coll.
h. Ad. st.	Australia.	
i. Ad. sk.	West Point, S. Island, New Zealand.	Miss Smartt.
j. ♂ ad. sk.	Otago, N. Zeal., Oct. 10, 1875.	Hume Coll.
k. ♀ ad. sk.	New Zealand.	Colonial Mus.
l. Ad. sk.	New Zealand.	Sir G. Grey [P.].
m. Ad. sk.	New Zealand.	Salvin-Godman Coll.
n. Ad. sk.	Auckland Is.	Antarctic Exped.
o. Ad. st.	Callao Bay, Peru, Jan. 4, 1837.	C. Darwin, Esq. [P.].
p. Ad. sk.	Callao Bay, Aug. 1881 (*A. H. Markham*).	Salvin-Godman Coll.
q. Ad. sk.	Corral, Chili (*E. C. Reed*).	Salvin-Godman Coll.
r, s. ♂ ad.; *t.* ♀ ad. sk.	Corral, Nov. (*A. A. Lane*).	H. Berkeley James, Esq. [P.].
u, v. ♂ ad. sk.	Chili (*E. C. Reed*).	Salvin-Godman Coll.
w. Ad. sk.	Coquimbo, Chili, Aug. (*Dr. Coppinger*).	Salvin-Godman Coll.
x, y. ♂ ♀ ad. sk.		Antarctic Exped.
z. Ad. st.	Straits of Magellan.	Capt. Fitzroy.
a'. Skeleton.		
b'. Sternum.	Valparaiso.	Dr. Coppinger [C.].

19. Puffinus tenuirostris.

Procellaria tenuirostris, *Temm.* text sub *Pl. Col.* 587 (1835); *Temm. & Schl. Faun. Jap.* p. 131, pl. 86 (1842); *Audub. Birds Am.* 8vo ed. vii. p. 210 (1844); *Schl. Mus. P.-B.* vi., Procell. p. 26 (1863).

Puffinus brevicaudus, *Brandt, Icon. Ross. Av.* t. 6. fig. 17 (1836); *Gray, List Anseres Brit. Mus.* p. 159 (1844); *id. Hand-l.* iii. p. 103 (1871); *Gould, Birds Austr.* vii. pl. 56 (1847); *id. Handb. Birds Austr.* ii. p. 549 (1865); *Bp. Compt. Rend.* xlii. p. 769 (1856); *Layard, Ibis*, 1862, p. 99, 1863, p. 245, 1878, p. 264, 1882, pp. 539, 544; *Gigl. Faun. Vert. Oceano*, p. 33 (1870); *id. Viagg. 'Magenta,'* pp. 735, 800 (1875); *Hutton, Cat. Birds N. Zeal.* p. 45 (1871); *id. Ibis*, 1874, p. 41; *Buller, Birds N. Zeal.* p. 315 (1873); *id. Ibis*, 1874, p. 120; *Hamilton, Tr. N. Zeal. Inst.* xviii. p. 128 (1886).

Puffinus tenuirostris, *Gray, List Anseres Brit. Mus.* p. 160 (1844); *id. Gen. Birds*, iii. p. 647 (1844); *id. Hand-l.* iii. p. 103 (1871); *Bp. Compt. Rend.* xlii. p. 769 (1856); *Gigl. Faun. Vert. Oceano*, p. 33 (1870); *id. Viagg. 'Magenta,'* pp. 332, 536 (1875); *Coues, Key N. Am. Birds*, p. 332 (1872); *Finsch. J. f. Orn.* 1874, p. 210; *id. Abhandl. Bremen*, iii. p. 83; *id. P. Z. S.* 1879, p. 16; *Ridgw. Pr. U.S. Nat. Mus.* iii. pp. 223, 230 (1880); *id. Man. N. Am. Birds*, p. 62 (1887); *Salvad. Orn. Pap.* iii. p. 462 (1882); *Blakiston & Pryer, Trans. As. Soc. Jap.* x. p. 107 (1882); *Coues, Check-list N. Am. Birds*, p. 129 (1882); *id. Key N. Am. Birds*, ed. 2, p. 787 (1884); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 392 (1884); *A. O. U. Check-l. N. Am. Birds*, p. 102 (1886); *Blakiston, Amended List Jap. Birds*, p. 23 (1884); *id. Pr. U.S. Nat. Mus.* ix. p. 655 (1887); *Ridgw. Man. N. Am. Birds*, p. 62 (1887); *id. Pr. U.S. Nat. Mus.* xvi. p. 664; *Stejn. Pr. U.S. Nat.*

Mus. x. p. 125 (1887); *id. op. cit.* xiv. p. 490 (1891); *id. Bull. U.S. Nat. Mus.* no. 29, pp. 96, 316 (1885); *Sav. Ibis*, 1888, p. 356; *Buller, Birds N. Zeal.* ed. 2, ii. p. 230 (1888); *Seeb. Birds Jap. Emp.* p. 267 (1890); *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 80; *Tacz. Mém. Ac. Imp. St. Pétersb.* xxxix. p. 1066 (1893); *Hutton, P. Z. S.* 1893, p. 749.

Nectris tenuirostris, *Bp. Consp. Av.* ii. p. 202 (1856); *Swinh. Ibis*, 1863, p. 330; *Coues, Pr. Ac. Phil.* 1864, pp. 126, 143; *Dall, Trans. Chic. Ac. Sc.* i. p. 303 (1869); *Baird, Trans. Chic. Ac. Sc.* i. p. 322, pl. 34. fig. 2 (1869).

Nectris brevicauda, *Bp. Consp. Av.* ii. p. 201 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 127, 143; *Gould, Handb. B. Austr.* ii. p. 459 (1865).

Puffinus curilicus, *Bp. Compt. Rend.* xlii. p. 769 (1856).

Priofinus brevicaudus, *Bp. Compt. Rend.* xlii. p. 769 (1856).

Procellaria curilica, *Kittl. Denkwürd.* i. p. 296 (1858).

Puffinus obscurus et P. brevicaudis, *R. Elwes, Ibis*, 1859, p. 397.

Puffinus brevicaudatus, *Finsch, J. f. Orn.* 1870, p. 371.

Priocella tenuirostris, *Nelson, Cruise 'Corwin,'* p. 152 (1883).

Adult female. Sooty-brown, the feathers of the back very indistinctly edged with a lighter shade; under surface paler and greyer, lighter on the throat and breast, darker on the flanks and under tail-coverts; under wing-coverts paler grey: bill fleshy horn-colour; tarsi and toes yellowish, outwardly darker, Total length about 13 inches, wing 10·4; tail, central rectrices 9·2, lateral rectrices 2·8; bill 1·8, tarsus 2·05, middle and outer toes 2·3, inner toe 1·9.

Hab. Australian and New Zealand Seas, northwards to the seas of Japan and Alaska, and eastwards to Samoa.

a. Ad. st.	Japan Seas.	Purchased.
b. ♀ ad. sk.	Nagasaki, Japan, May 1876 (*Capt. St. John*).	Saunders Coll.
c. ♂ ad. sk.	Peel I., Bonin Is., May 15, 1890 (*P. A. Holst*).	Seebohm Coll.
d. Ad. sk.	Port Stephens, Australia.	Australian Museum.
e. Ad. st.	Port Stephens.	Australian Museum.
f–h. Ad. sk.	Australian Seas (*Cockerell*).	Salvin-Godman Coll.
i. Ad. sk.	S. Australia (*J. Gould*).	Salvin-Godman Coll.
j. Ad. sk.	Tasmania.	Sir E. Home [P.].
k. Ad. sk.	New Zealand	R. B. Sharpe, Esq. [P.].
l. Ad. sk.	New Zealand.	Salvin-Godman Coll.
m ♀ ad. sk.	[Australian Seas.]	Rev. J. Whitmee [P.].
n. Ad. st.		Purchased?
o. Skeleton.	Japan.	Purchased.
p. Skull.		
q. Odd bones.		H.M.S. 'Challenger.'

20. Puffinus nativitatis.

Puffinus (Nectris) nativitatis, *Streets, Bull. U.S. Nat. Mus.* no. 7, p. 29 (1877).

Puffinus nativitatis, *Ridgw. Man. N. Am. Birds*, p. 62 (1887); *Lister, P. Z. S.* 1891, pp. 295, 300; *Wiglesworth, Abh. k. Zool. Mus. Dresden*, 1892, no. 6, p. 81.

Adult male. Similar to *P. tenuirostris* but smaller, richer brown,

especially on the under surface, the throat alone being slightly greyish: bill and feet black. Total length about 14 inches, wing 9·8; tail, central rectrices 3·6, lateral rectrices 2·75; bill 1·6, tarsus 1·62, middle and outer toes 1·8, inner toe 1·55.

Hab. Central North Pacific Ocean, from Christmas I. to Krusenstern I. and the Phœnix Group.

a, b. Ad. sk.	Krusenstern I., Spring of 1883 (*H. J. Snow*).	Salvin-Godman & Seebohm Colls.
c. ♂ ad. sk.	Phœnix I., Phœnix Group, June 29, 1889.	J. J. Lister, Esq. [P.].

2. PRIOFINUS.

	Type.
Priofinus, *Hombr. & Jacq. Compt. Rend.* xviii. p. 355 (1844); *Jacq. & Puch. Voy. Pôle Sud, Zool.* iii. p. 145, t. 32. figs. 9–14 (1853); *Coues, Pr. Ac. Phil.* 1866, p. 192	P. cinereus.
Adamastor, *Bp. Consp. Av.* ii. p. 187 (1855); *Coues, Pr. Ac. Phil.* 1864, p. 119	P. cinereus.

Range. Southern Oceans.

1. Priofinus cinereus.

Le Puffin cendré, *Briss. Orn.* vi. p. 134, pl. xii. fig. 1 (1760).
Le Pétrel cendré, *Buff. Hist. Nat. Ois.* ix. p. 302, pl. 20 (1763).
Le Puffin, *D'Aub. Pl. Enl.* 962.
Cinereous Fulmar, *Lath. Gen. Syn.* iii. pt. 2, p. 405 (1785).
Cinereous Petrel, *Lath. Gen. Syn., Suppl.* ii. p. 335 (1802); *id. Gen. Hist.* x. p. 183 (1824).
Procellaria cinerea, *Gm. Syst. Nat.* i. p. 563 (1788); *Lath. Ind. Orn.* ii. p. 824 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 418 (1817); *id. Enc. Méth.* p. 78 (1813); *Kuhl, Beitr.* p. 148 (1820); *Pollen & Van Dam, Faun. Madag., Ois.* p. 145 (1868); *Hutton, Cat. Birds N. Zeal.* p. 45 (1871); *Buller, Birds N. Zeal.* p. 305 (1873); *Hartl. Vög. Madag.* p. 374 (1877); *Milne-Edw. & Grand. Hist. Madag., Ois.* p. 671 (1885).
Procellaria gelida, *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 419 (1817); *id. Enc. Méth.* p. 79 (1823).
Procellaria melanura, *Vieill. Enc. Méth.* p. 79 (1823).
Puffinus cinereus, *Steph. in Shaw's Gen. Zool.* xiii. p. 227 (1826); *Smith, Ill. Zool. S. Afr., Aves*, pl. 56 (1840); *Gould, Voy. 'Beagle,'* ii. *Birds*, p. 137 (1841); *Gray, List Anseres Brit. Mus.* p. 159 (1844); *id. Cat. Brit. Birds*, p. 223 (1863); *Peale, U.S. Expl. Exp.* viii. p. 338 (1848); *Reich. Av. Syst. Nat., Natatores*, pl. 14. figs. 768, 769 (1850); *Lawr. Birds N. Am.* p. 835 (1860); *Layard, Ibis*, 1863, p. 247; *id. Birds S. Afr.* p. 358 (1867); *A. O. U. Check-l. N. Am. Birds*, p. 102 (1886); *Ridgw. Man. N. Am. Birds*, p. 58 (1887).
Procellaria hæsitata, *Forst. Descr. An.* p. 208 (1844) (*nec Kuhl*); *Gould, Birds Austr.* vii. pl. 47 (1848); *Hutton, Ibis*, 1865, p. 285, 1867, p. 187; *Cab. & Reich. J. f. Orn.* 1876, p. 329.
Priofinus cinereus, *Jacq. & Puch. Voy. Pôle Sud, Zool.* iii. p. 145 (1853); *Bp. Compt. Rend.* xlii. p. 769 (1856); *Elliot, Birds N. Am.* ii. pl. 60. fig. 2 (1868); *Gigl. Faun. Vert. Oceano*, p. 34 (1870);

id. Viagg. 'Magenta' (see index) (1875); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 375 (1884).

Adamastor typus, *Bp. Consp. Av.* ii. p. 187 (1855).

Puffinus kuhli, *Cass. Pr. Ac. Phil.* 1862, p. 327 (*nec Boie*).

Procellaria adamastor, *Schleg. Mus. P.-B.* vi., Procell. p. 23 (1863).

Adamastor cinereus, *Coues, Pr. Ac. Phil.* 1864, pp. 119, 142; *Gould, Handb. Birds Austr.* ii. p. 446 (1865); *Hutton, Ibis*, 1870, p. 396; *Salv. P. Z. S.* 1878, p. 737; *id. Voy. 'Chall.,' Zool.* ii. pt. viii. p. 142 (1881); *Saund. P. Z. S.* 1880, p. 164; *Layard, Ibis*, 1882, pp. 539, 544; *Buller, Birds N. Zeal.* ed. 2, p. 241 (1888); *id. Trans. N. Z. Inst.* xxiv. p. 69 (1892).

Adamastor gelidus, *Coues, Pr. Ac. Phil.* 1864, pp. 121, 142.

Œstrelata hæsitata, *Hutton, Ibis*, 1869, p. 352.

Fulmarus gelidus, *Gray, Hand-l.* iii. p. 106 (1871).

Priofinus melanurus, *Coues, Key N. Am. Birds*, p. 330 (1872), ed. 2, p. 783 (1884); *id. Check-l. N. Am. Birds*, p. 127 (1882); *Ridgw. Pr. U.S. Nat. Mus.* ii. p. 209 (1880), iii. pp. 12, 230 (1880).

Puffinus gelidus, *Ridgw. Man. N. Am. Birds*, p. 58 (1887).

Adult male. Upper surface cinereous, rather darker on the crown, wings, tail, and rump; the feathers of the back with dark shafts; under surface white: the sides of the head and neck pale grey, blending into the white of the under plumage and the darker grey of the upper; a few feathers on the flanks and the under tail-coverts grey; under wing-coverts and quills grey: bill yellow, the nares and culmen black; tarsi and toes fleshy brown, the outer toe darker. Total length about 19 inches, wing 13; tail, central rectrices 4·4, lateral rectrices 3·5; bill 2·4, tarsus 2·3, middle and outer toes 2·75, inner toe 2·35.

Female like the male.

Hab. Southern Oceans.

✓	*a.* Ad. sk.	South Atlantic Ocean, lat. 38° S., long. 12° W. (*Dr. A. B. Meyer*).	Salvin-Godman Coll.
✓	*b–d.* Ad. sk.	S. Atlantic Ocean, lat. 35° 20′ S., long. 9° 43′ E.	Earl of Crawford and Balcarres [P.].
✓	*e.* ♀ ad. sk.	S. Indian Ocean, lat. 37° S., long. 53¼° E., April 23, 1847 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
✓	*f.* ♂ ad.; *g.* ♀ ad. sk.	S. Indian Ocean, lat. 35½° S., long. 85° E., June 2, 1847 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
✓	*h.* Ad. sk.	Kerguelen Land, July 1893.	Capt. Moseley [P.].
	i. Ad. sk.	Open sea off New Caledonia (*E. L. Layard*).	Seebohm Coll.
✓	*j.* Ad. sk.	New Zealand (ex *Dr. O. Finsch*).	Salvin-Godman Coll.
✓	*k.* Ad. sk.	S. Pacific Ocean, lat. 40° S., long. 137° W., June 6, 1850 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
	l. Ad. sk.	S. Pacific Ocean.	J. F. Green, Esq. [P.].
	m. ♂ ad.; *n.* ♀ ad. sk.	S. Pacific Ocean, Nov. 5, 1875.	Voy. H.M.S. 'Challenger.'
	o. Ad. sk.	Valparaiso, Chili.	Capt. W. S. Brett [P.].
✓	*p.* Ad. sk.	Antarctic Circle.	Sir G. Grey [P.].

q. Ad. sk.	Antarctic Circle.	Old Collection.
r. Ad. sk.	South Seas.	Salvin-Godman Coll.
s. Ad. sk.	South Seas (*H. King*).	Salvin-Godman Coll.
t. Ad. sk.	South Seas.	Old Collection.
u. Skeleton.	Off Cape Horn, May 1870.	Salvin-Godman Coll.

3. THALASSŒCA.

Type.

Thalassœca, *Reich. Syst. Av.* p. iv (1852); *Coues, Pr. Ac. Phil.* 1866, p. 29 ..... T. antarctica.

Aeipetes, *Forbes, Voy.* '*Chall.*,' *Zool.* iv. pt. xi. p. 59 (1882) ..... T. antarctica.

Range. Antarctic Ocean.

1. Thalassœca antarctica.

Antarctic Peteril, *Cook, Voy.* i. p. 257 ; *Forster, Voy.* i. p. 108 ; *Lath. Gen. Syn.* iii. pt. 2, p. 400 (1785) ; *id. Gen. Hist.* x. p. 177 (1824).

Le Pétrel Antarctique ou Damier brun, *Buff. Hist. Nat. Ois.* x. p. 151 (1786).

Procellaria antarctica, *Gm. Syst. Nat.* i. p. 565 (1788); *Lath. Ind. Orn.* ii. p. 822 (1790); *Kuhl, Beitr.* p. 145 (1820); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 417 (1820); *id. Enc. Méth.* p. 75 (1823); *Gray, List Anseres Brit. Mus.* p. 163 (1844); *id. Gen. Birds,* iii. p. 648 (1844); *Peale, U.S. Expl. Exp.* viii. p. 338 (1848); *Reich. Av. Syst. Nat., Natatores,* pl. 22. fig. 790 (1850); *Jacq. & Puch. Voy. Pôle Sud, Zool.* iii. p. 139 (1853); *Schleg. Mus. P.-B.*, vi. Procell. p. 15 (1863); *Pelz. Reise Nov., Zool.* i., *Vög.* p. 147 (1869).

Daption antarcticum, *Steph. in Shaw's Gen. Zool.* xiii. p. 242 (1826).

Thalassœca antarctica, *Reich. Syst. Av.* p. iv (1852); *Bp. Consp. Av.* ii. p. 192 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Coues, Pr. Ac. Phil.* 1866, pp. 31, 192 ; *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Salv. P. Z. S.* 1878, p. 736 ; *id. Voy.* '*Chall.*,' *Zool.* ii. pt. viii. p. 142 (1881) ; *Lucas, Auk,* iv. p. 4 (1887) ; *Buller, Birds N. Zeal.* ed. 2, ii. p. 229 (1888) ; *Scl. Ibis,* 1894, p. 498.

Fulmarus antarcticus, *Gray, Hand-l. B.* iii. p. 105 (1871); *Ridgw. Man. N. Am. Birds,* p. 58 (1887).

Priocella antarctica, *Sharpe, Voy.* '*Ereb. & Terror*,' i. *Birds,* App., p. 37, pl. 33 (1875) ; *Hector, Trans. N. Zeal. Inst.* ix. p. 464.

Aeipetes antarctica, *Forbes, Voy.* '*Chall.*,' *Zool.* iv. pt. xi. p. 59 (1882).

Adult female. Upper surface brown, the inner secondaries and larger wing-coverts white ; upper tail-coverts white, the central feathers brown at the tips ; quills outwardly brown, the shafts and inner webs white nearly to the tip ; under surface white, the throat and sides of the neck pale brown, the bases of the feathers white ; under wing-coverts and axillaries white, the edge of the wing brown ; tail white, the tip brown : bill blackish horn-colour ; tarsi and toes yellowish, the outer toe darker. Total length about 17 inches, wing 12, tail 4·2, bill 2, tarsus 1·7, middle and outer toes 2·3, inner toe 1·9.

Sexes alike.

Hab. Antarctic Seas.

a. Ad. sk.	Cape Horn.	Salvin-Godman Coll. sp. figured
b. ♂ ad.; *c*, *d*. ♀ ad. sk.	Ice Barrier, June 14, 1874.	Voy. H.M.S. 'Challenger.'
e, *f*. Ad. sk.	Antarctic Seas, Jan. & Feb. 1842.	Dr. R. McCormick [P.].
g. Ad. sk.	Antarctic Seas, lat. 77° 49′ S., long. 181° 10′ E.	Antarctic Exped.
h. Ad. sk.	Antarctic Seas.	Antarctic Exped.
i–k. Ad. st.	Antarctic Seas.	Antarctic Exped.
l, *m*. Ad. sk.	Antarctic Seas.	Salvin-Godman Coll.
n. Skeleton.		
o, *p*. Sterna.		

4. PRIOCELLA.

Type.

Priocella, *Hombr. & Jacq. Compt. Rend.* xviii. p. 357 (1844); *Jacq. & Puch. Voy. Pôle Sud, Zool.* iii. p. 148, t. 32. figs. 43–56 (1853)..... P. glacialoides.
Thalassœca, *Coues, Pr. Ac. Phil.* 1866, p. 29 (partim).

Range. Southern Ocean, and in the Pacific north to the coast of California.

1. Priocella glacialoides.

Procellaria glacialis, var. *β*, *Gm. Syst. Nat.* i. p. 563 (1788); *Lath. Ind. Orn.* ii. p. 823 (1790); *Forst. Descr. An.* p. 25 (1844); *D. Walker, P. Z. S.* 1863, p. 378; *Layard, Ibis*, 1863, p. 98.
Fulmarus antarcticus, *Steph. in Shaw's Gen. Zool.* xiii. p. 236 (1826).
Procellaria tenuirostris (*nec Temm.*), *Audub. Orn. Biogr.* v. p. 333 (1839); *id. Birds Am.* 8vo. ed. vii. p. 210 (1844); *Cassin, U.S. Expl. Exp.* viii. p. 409 (1858); *Lawr. Birds N. Am.* p. 826 (1860).
Procellaria glacialoides, *Smith, Ill. Zool. S. Afr., Aves*, pl. 51 (1840); *Gould, Zool. Voy. 'Beagle,'* ii. *Birds*, p. 140 (1841); *id. Birds Austr.* vii. pl. 48 (1848); *Gray, List Anseres Brit. Mus.* p. 162 (1844); *id. Gen. Birds*, iii, p. 648 (1844); *id. Ibis*, 1862, p. 246; *Peale, U.S. Expl. Exp.* viii. p. 338 (1848); *Reich. Av. Syst. Nat., Natatores*, pl. 21. fig. 789 (1850); *Hutton, Ibis*, 1865, p. 287, 1867, p. 187; *id. Cat. Birds N. Zeal.* p. 45 (1871); *Layard, Birds S. Afr.* p. 361 (1867); *Pelz. Reise Novara, Zool.* i. *Vög.* p. 146 (1869); *Melliss, Ibis*, 1870, p. 105; *Buller, Birds N. Zeal.* p. 301 (1873).
Priocella garnoti, *Homb. & Jacq. Voy. au Pôle Sud*, iii. p. 148, pl. 32. figs. 43–56 (1844); *Bp. Compt. Rend.* xlii. p. 768 (1856).
Procellaria garnoti, *Gray, Gen. B.* iii. p. 648 (1844).
Thalassœca glacialoides, *Bp. Consp. Av.* ii. p. 191 (1855); *id. Compt. Rend.* xlii, p. 768 (1856); *Coues, Pr. Ac. Phil.* 1866, p. 30; *Scl. P. Z. S.* 1867, p. 336; *Elliot, Birds N. Am., Intr.*; *Gould, Handb. Birds Austr.* ii. p. 467 (1865); *Gigl. Faun. Vert. Oceano*, p. 47 (1870); *id. Viagg. 'Magenta'* (see index) (1875); *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Reed, Ibis*, 1874, p. 82; *Salv. P. Z. S.* 1878, p. 736; *id. Voy. 'Chall.,' Zool.* ii. pt. viii. p. 142 (1881); *id. Cat. Strickl. Coll.* p. 630 (1882); *id. P. Z. S.* 1883, p. 431; *Moseley, Notes Nat. 'Chall.'* pp. 134, 253 (1879); *Tacz. Orn. Pér.* iii. p. 464 (1886); *Buller, Birds N. Zeal.* ed. 2, ii. p. 228 (1888); *id. Tr. N. Zeal. Inst.* xxv. pp. 62, 80 (1893); *Scl. Ibis*, 1894, p. 498.
Thalassœca glacialoides, *a*. polaris & *b*. tenuirostris, *Bp. Consp. Av.* ii. p. 192 (1855).
Thalassœca tenuirostris, *Bp. Compt. Rend.* xlii. p. 768 (1856); *Sharpe,*

Phil. Trans. clxviii. p. 123 (1879); *id. P. Z. S.* 1881, p. 11; *id. ed. Layard's Birds S. Afr.* p. 767 (1884).
Thalassoica polaris, *Bp. Compt. Rend.* xlii. p. 768 (1856).
Procellaria smithi, *Schl. Mus. P.-B.*, vi. Procell. p. 22 (1863); *Finsch, J. f. Orn.* 1870, p. 373.
Fulmarus glacialoides, *Gray, Hand-l. B.* iii. p. 105 (1871); *Lucas, Auk*, iv. p. 4 (1887); *A. O. U. Check-l. N. Am. Birds*, p. 100 (1886); *Ridgw. Man. N. Am. Birds*, p. 58 (1887).
Fulmarus tenuirostris, *Coues, Key N. Am. Birds*, p. 328 (1872).
Priocella tenuirostris, *Ridgw. Pr. U.S. Nat. Mus.* ii. p. 209 (1880), iii. pp. 12, 230 (1880); *Coues, Check-list N. Am. Birds*, p. 125 (1882); *id. Auk*, i. p. 80 (1884); *id. Key N. Am. Birds*, ed. 2, p. 778 (1884); *Stejn. Auk*, i. p. 233 (1884).
Priocella glacialoides, *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 373 (1884).

Adult male. Upper surface pale grey, paler on the head and back of the neck; quills outwardly greyish black; a dark spot in front of the eye; forehead, cheeks, and entire under surface white; flanks washed with pale grey; under wing-coverts and axillaries pure white, a few grey feathers on the edge of the wing; tail pale grey: bill yellow, the tip, middle of the culmen, nasal-covers, and base of the maxilla black; tarsi and toes pale flesh-colour, the outer toe darker. Total length about 18 inches, wing 12·6; tail, central rectrices 5·1, lateral rectrices 4·15; bill 2·1, tarsus 1·8, middle and outer toes 2·4, inner toe 2·05.

Sexes alike.

Hab. South Seas generally, northwards along the West Coast of America to Washington Territory.

a. ♀ ad. sk.	South Atlantic Ocean, lat. 40° 43′ S., long. 58° 04′ W., Aug. 14, 1877.	H. Durnford, Esq. [C.].
b. Ad. sk.	Straits of Magellan.	The Admiralty [P.].
c. ♂ ad. sk.	South Pacific Ocean, lat. 44° S., long. 110½° W., June 17, 1850 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
d, e. Ad. sk.	Valparaiso Bay.	H. Berkeley James, Esq. [P.].
f. ♂ ad. sk.	Valparaiso, July 1882 (*Capt. A. H. Markham*).	Salvin-Godman Coll.
g, h. Ad. sk.	Valparaiso (*J. Young*).	H. Saunders Coll.
i. ♂ ad. sk.	Valparaiso, Aug. 4, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
j, k. Ad. sk.	Valparaiso.	Capt. Brett [P.].
l. ♂ ad.; *m.* ♀ ad. sk.	Coquimbo, Chili, Nov. 1881 (*Capt. A. H. Markham*).	Salvin-Godman Coll.
n. Ad. sk.	Off Lobos de Tierra, coast of Peru, July 10, 1883 (*J. R. Macfarlane*).	Salvin-Godman Coll.
o. Ad. sk.	Mazatlan, Coast of Mexico.	Salvin-Godman Coll.
p. Ad. sk.	Louis Philippe I., Southern Ocean.	Purchased.
q. ♂ ad. sk.	Ice Barrier, Feb. 26, 1874.	Voy. H.M.S. 'Challenger.'

r. Ad. sk.	Cape of Good Hope.	Andrew Smith Coll.- type - (A typical specimen.)
s. Ad. sk.	South Africa.	South African Mus.
t. Ad. sk.	Kerguelen Land, May 12, 1840.	Dr. McCormick [P.].
u. Ad. sk.	Kerguelen Land.	Antarctic Exped.
v. Ad. st.	Kerguelen Land.	Lieut. A. Smith [P.].
w–y. ♂ ad.; *z*, *a'*. ♀ ad. sk.	Southern Ocean.	Antarctic Exped.
b'. Ad. sk.	Southern Ocean.	The Admiralty [P.].
c'. Ad. sk.	Southern Ocean.	Salvin-Godman Coll.
d'. Skeleton.	Off Cape Horn.	Salvin-Godman Coll.

5. MAJAQUEUS.

Type.

Majaqueus, *Reich. Syst. Av.* p. iv (1852); *Coues, Pr. Ac. Phil.* 1864, p. 117.

Cymatobulus, *F. Heine, Nomencl. Mus. Hein.* p. 363 (1890) ..... M. æquinoctialis.

Hab. Southern Oceans.

Key to the Species.

a. Larger: chin more or less white..... *æquinoctialis*, p. 395.
b. Smaller: plumage, including the chin, sooty-black. *parkinsoni*, p. 397.

1. Majaqueus æquinoctialis.

Great Black Peteril, *Edw. Nat. Hist.* ii. pl. 89 (1747); *Lath. Gen. Hist.* x. p. 173 (1824).

Procellaria fuliginosa, *Solander MS.*; *Parkinson, Icon. ined.* no. 19, *cf. Salvin in Rowley's Orn. Misc.* i. p. 232 (1876).

Le Puffin du Cap de Bonne Espérance, *Briss. Orn.* vi. p. 137 (1760).

Procellaria æquinoctialis, *Linn. Syst. Nat.* i. p. 213 (1766); *Gm. Syst. Nat.* i. p. 564 (1788); *Lath. Ind. Orn.* ii. p. 821 (1790); *Pallas, Zoogr. Rosso-As.* ii. p. 314 (1811); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 422 (1817); *id. Enc. Méth.* p. 80 (1823); *Kuhl, Beitr.* p. 141 (1820); *Less. Man. d'Orn.* ii. p. 348 (1828); *Jacq. & Puch. Voy. Pôle Sud*, iii. p. 140 (1853); *Burm. Syst. Ueb. Th. Bras.* iii. p. 445 (1856); *Grill, Zool. Anteckn.* pp. 12, 59 (1858); *Gray, Ibis*, 1862, p. 245; *Schl. Mus. P.-B.*, vi. Procell. p. 19 (1863); *Layard, Ibis*, 1862, p. 97, 1863, p. 249, 1867, p. 459; *id. B. S. Afr.* p. 369 (1867); *D. Walker, P. Z. S.* 1863, p. 378; *Hutton, Ibis*, 1865, p. 285, 1867, p. 187, 1870, p. 396; *Pollen & Van Dam, Faun. Madag., Ois.* p. 144 (1868); *Finsch & Hartl. Vög. Ostafr.* p. 817 (1870); *Finsch, J. f. Orn.* 1870, p. 373; *Cab. & Reichenow, J. f. Orn.* 1876, p. 329; *Hartl. Vög. Madag.* p. 374 (1877); *Milne-Edw. & Grand. Hist. Madag., Ois.* p. 671 (1885).

Pétrel-Puffin brun, *Buff. Hist. Nat. Ois.* x. p. 163 (1786).

Black Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 398 (1785).

Puffinus æquinoctialis, *Steph. in Shaw's Gen. Zool.* xiii. p. 229 (1826); *Gray, List Anseres Brit. Mus.* p. 160 (1844); *id. Gen. Birds*, iii. p. 647 (1844); *id. Voy. 'Ereb. & Terr.'* i. *Birds*, p. 17 (1846); *Reich. Av. Syst. Nat., Natatores*, pl. 20. figs. 340–341 (1850); *Pelz. Reise Novara, Zool.* i. *Vög.* p. 143 (1869); *id. Ibis*, 1873, p. 46.

Procellaria conspicillata, *Gould, Ann. & Mag. N. H.* 1844, xiii. p. 362; *id. Birds Austr.* vii. pl. 46 (1848); *Schl. Mus. P.-B.*, vi.

Procell. p. 20 (1863); *Van Kempen, Bull. Zool. Soc. Fr.* xiv. p. 106 (1889).

Procellaria nigra, *Forst. Descr. An.* p. 26 (1844).

Majaqueus æquinoctialis, *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 200 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 118, 142; *Gigl. Faun. Vert. Oceano.* p. 35 (1870); *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 13 (1876); *Salv. in Rowley's Orn. Misc.* i. p. 232 (1876); *id. P. Z. S.* 1878, p. 737; *id. op. cit.* 1883, p. 431; *id. Voy. 'Chall.,' Zool.* ii. pt. viii. p. 143 (1881); *id. Cat. Strickl. Coll.* p. 629 (1882); *id. Ibis*, 1894, p. 498; *Moseley, Notes Nat. 'Chall.'* pp. 137, 208, 254 (1879); *Sharpe, Phil. Trans.* clxviii. p. 119 (1879); *id. P. Z. S.* 1881, p. 12; *id. ed. Layard's Birds S. Afr.* p. 766 (1884); *Saunders, P. Z. S.* 1880, p. 164; *Lucas, Auk*, iv. p. 3 (1887); *Buller, Tr. N. Zeal. Inst.* xxv. pp. 62, 80 (1893); *id. op. cit.* xxvii. p. 122 (1895); *Hutton, Tr. N. Z. Inst.* xxvii. p. 177 (1895).

Majaqueus conspicillatus, *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 200 (1856); *Coues, Pr. Ac. Phil.* 1864, pp. 118, 142; *Gould, Handb. Birds Austr.* ii. p. 445 (1865); *Gigl. Faun. Vert. Oceano*, p. 36 (1870); *Salv. Cat. Strickl. Coll.* p. 629 (1882).

Puffinus conspicillatus, *Pelz. Reise Novara, Zool.* i. *Vög.* p. 143 (1869).

Fulmarus æquinoctialis et conspicillatus, *Gray, Hand-l. B.* iii. p. 108 (1871).

Adult male. Sooty-black, the feathers of the back and the wing-coverts with slightly paler edges; chin white; shafts of the primaries white: bill yellowish horn-colour, with the spaces between the various portions of the sheath of both mandible and maxilla black; feet black. Total length about 20 inches, wing 15; tail, central rectrices 5·3, lateral rectrices 4·5; bill 2·6, tarsus 2·6, middle and outer toes 3·25, inner toe 2·8.

The amount of white on the chin varies very much in different individuals. Some have an irregular white stripe running from near the base of the mandible under the eye almost to the nape, and a transverse band across the forehead in front of the eye. Upon such specimens Gould founded his *M. conspicillatus*, a form recognized by Dr. Coues as distinct, but apparently connected with the typical form by every degree of variation.

Hab. South Seas, north to about lat. 30° S.

a. ♂ ad. sk.	Simon's Bay, Cape of Good Hope, Mar. 16, 1847 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'	Capt. Lt.
b. Ad. sk.	Cape of Good Hope (*E. L. Layard*).	Shelley Coll.	
c. Ad. sk.	Cape of Good Hope (*S. Afr. Mus.*).	Shelley Coll.	
d, *e*. Ad. sk.	Cape Seas.	Salvin-Godman Coll.	
f. Ad. sk.	Cape Seas.	Mrs. Dundas [P.].	
g. Ad. st.	Cape Seas.	Old Collection.	
h. Ad. sk.	Cape Seas, lat. 34° 39′ S., long. 8° 51′ E., Sept. 19.	Earl of Crawford and Balcarres [P.].	
i, *j*. Ad. sk.	Southern Ocean, lat. 29° 45′ & 32° S., Oct. 20, 24.	Earl of Crawford and Balcarres [P.].	

k. ♀ ad. sk.	Royal Sound, Kerguelen Land (*A. E. Eaton*).	Transit of Venus Exped.	W·14·8
l, m. ♂ ad. sk.	Kerguelen Land.	Voy. H.M.S. 'Challenger.'	W. 14·3 - 14·5
n. ♀ ad. sk.	Greenland Harbour, Kerguelen Land.	Voy. H.M.S. 'Challenger.'	W. 14·3
o. Ad. sk.	Tasmania.	Sir E. Home [P.].	
p. Ad. sk.	Australian Seas.	Salvin-Godman Coll.	W 14·4
q. Ad. sk.	[Australian Seas.]	Gould Coll.	
r. ♂ ad. st.	Australia.	Sir G. Grey [P.].	
s. Ad. sk.	[Australian Seas.]	W. Golding, Esq. [P.].	W. 14·0
t. ♀ ad. sk.	New Zealand. (Auckland Is.)	Prof. T. J. Parker [P.].	
u. ♀ ad. sk.	Coquimbo, Chili, June 1882 (*Captain A. H. Markham*).	Salvin-Godman Coll.	W - 15·4
v. ♂ ad. sk.	Valparaiso, Chili, Aug. 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'	W. 15·6
w. ♂ ad. sk.	Valparaiso, Aug. 12, 1879 (*Dr. Coppinger, H.M.S.* 'Alert.')	Salvin-Godman Coll. sh-fig 2	W 14·8
x. Ad. sk.	Southern Ocean.	Indian Museum.	W. 14·4
y. Skeleton.		Voy. H.M.S. 'Challenger.'	

2. Majaqueus parkinsoni. (Plate V.)

Procellaria parkinsoni, *Gray, Ibis*, 1862, p. 245; *Buller, Birds N. Zeal.* p. 302 (1873); *id. Ibis*, 1874, p. 121; *Hutton, Cat. Birds N. Zeal.* p. 46 (1871); *id. Ibis*, 1874, p. 42; *Finsch, J. f. Orn.* 1870, p. 373; *id. op. cit.* 1874, p. 207; *Reischek, Tr. N. Zeal. Inst.* xviii. p. 87 (1886); *Sandayer, Tr. N. Z. Inst.* xxii. p. 291 (1889).

Majaqueus parkinsoni, *Coues, Pr. Ac. Phil.* 1866, p. 192; *Hutton, Ibis*, 1869, p. 351; *Buller, Birds N. Zeal.* ed. 2, ii. p. 242 (1888); *id. op. cit.* xxvii. p. 122 (1895).

Puffinus parkinsoni, *Pelz. Reise Novara, Zool.* i. *Vög.* p. 144 (1869).

Fulmarus parkinsoni, *Gray, Hand-l.* iii. p. 108 (1871).

Very similar to *M. æquinoctialis*, but smaller; the bill not nearly so stout, and the entire plumage including the chin sooty-black. Total length about 18 inches, wing 13·2; tail, central rectrices 4·3, lateral rectrices 3·6; tarsus 2·2, middle and outer toes 2·65, inner toe 2·1.

Hab. New Zealand Seas.

a. Ad. sk.	New Zealand.	Miss R. Stone. (Type of the species.)
b. Juv. sk.	W. Point, S. Island, New Zealand.	Miss Smartt [P.].

6. ŒSTRELATA.

	Type.
Æstrelata, *Bp. Consp. Av.* ii. p. 188 (1855); *Coues, Pr. Ac. Phil.* 1866, p. 137	Œ. hesitata.
Cookilaria, *Bp. Consp. Av.* ii. p. 190 (1855)	Œ. leucoptera.
Pterodroma, *Bp. Consp. Av.* ii. p. 191 (1855)	Œ. macroptera.
Œstrelata, *Newton, Ibis*, 1870, p. 277; *Forbes, Voy.* 'Chall.,' *Zool.* iv. pt. xi. p. 39, &c. (1882).	

Range. Temperate and tropical portions of the Oceans of the Southern hemisphere. In the Atlantic, northwards casually to the British Islands; in the Pacific to Japan, &c.

Key to the Species.

a. Exposed portion of the outer primary beneath more or less dark.
  a'. Bill wide at the gape.
    a''. Entire plumage sooty-brown.
      a'''. Larger: bill stout, but not excessively ... *macroptera*, p. 399.
      b'''. Smaller: bill very stout ... *aterrima*, p. 401.
    b''. Under surface more or less white.
      c'''. Whole head except region round the eye white ... *lessoni*, p. 401.
      d'''. Crown more or less dark.
        a^4. Upper tail-coverts white.
          a^5. Back of the neck and under surface white ... *hæsitata*, p. 402.
          b^5. Back of the neck and whole plumage sooty-brown ... *jamaicensis*, p. 403.
        b^4. Upper tail-coverts dark.
          c^5. Under wing-coverts dark.
            a^6. Throat and neck in front dark like the back; forehead dark.
              a^7. Dark portion of the plumage rich sooty-brown.
                a^8. Larger: wing 11 in. .... *rostrata*, p. 404.
                b^8. Smaller: wing 10·5 in. .. *parvirostris*, p. 405.
              b^7. Dark portion of the plumage greyish ... *incerta*, p. 405.
            b^6. Throat and neck in front, and forehead more or less white * . *mollis*, p. 406.
          d^5. Under wing-coverts inwardly more or less white, margin dark.
            c^6. Larger ... *phæopygia*, p. 407.
            d^6. Smaller.
              c^7. Head and neck above blacker.
                c^8. Bill more slender; larger under wing-coverts white. *brevipes*, p. 408.
                d^8. Bill stouter; larger under wing-coverts mostly dark. *hypoleuca*, p. 409.
              d^7. Head and neck above pale slaty ... *nigripennis*, p. 409.
  b'. Bill much compressed ... *brevirostris*, p. 409.
b. Exposed portion of the outer primary beneath more or less white towards the base of the inner web.
  c'. Large: bill stout; entire plumage greyish-sooty; concealed bases of the feathers of the under surface white ... *solandri*, p. 410.
  d'. Bill less stout; under plumage more or less white (except *Œ. trinitatis* and some forms of *Œ. neglecta*).
    c''. Larger: inner under wing-coverts white (wing about 11·5 in.).
      e'''. Margin of the wing beneath also white *externa*, p. 411.
      f'''. Margin of the wing beneath dark .... *cervicalis*, p. 411.

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* *Œ. magentæ*, Salvad. & Gigl., probably comes near here.

d''. Medium size (wing about 11·3); under wing-coverts mostly dark (except *Œ. gularis*).
g'''. Toes longer (middle toe 1·9).
*c*⁴. Upper surface and dark marks generally brownish ..... *neglecta*, p. 412.
h'''. Toes shorter (middle toe 1·75).
*d*⁴. Forehead dark.
*e*⁵. Under surface white ..... *arminjoniana*, p. 413.
*f*⁵. Under surface sooty ..... *trinitatis*, p. 413.
*e*⁴. Forehead white or mottled.
*g*⁵. Abdomen white; larger under wing-coverts mostly dark ..... *heraldica*, p. 414.
*h*⁵. Abdomen slaty-grey; larger under wing-coverts white* ..... *gularis*, p. 414.
e''. Small (wing about 8·5); under wing-coverts mostly white.
i'''. Axillaries white.
*f*⁴. Bill stouter, shorter ..... *leucoptera*, p. 416.
*i*⁵. Crown and hind neck blackish.
*j*⁵. Crown and upper plumage generally bluer ..... *defilippiana*, p. 417.
*g*⁴. Bill more slender, longer† ..... *cooki*, p. 417.
j'''. Axillaries black ..... *axillaris*, p. 418.

1. Œstrelata macroptera.

Procellaria fuliginosa, *Kuhl, Beitr.* p. 142 (1820) (*nec Gm.*); *Gray, List Anseres Brit. Mus.* p. 163 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *Forst. Descr. Anim.* p. 23 (1844); *Jacq. & Puch. Voy. Pôle Sud*, iii. p. 138 (1853); *Schl. Mus. P.-B.*, vi. Procell. p. 8 (1863); *Poll. & Van Dam, Faun. Madag., Ois.* p. 144 (1868); *Buller, Birds N. Zeal.* p. 304, pl. — (1873); *Finsch, J. f. Orn.* 1874, p. 207; *Salv. in Rowley's Orn. Misc.* i. p. 238 (1876); *id. Cat. Strickl. Coll.* p. 629 (1882); *Hartl. Vög. Madag.* p. 373 (1877); *Milne-Edw. & Grandid. Hist. Madag., Ois.* p. 670 (1885); *Hamilton, Tr. N. Zeal. Inst.* xviii. p. 128 (1886).

Procellaria macroptera, *Smith, Ill. Zool. S. Afr., Birds*, pl. 52 (1840); *Gould, Ann. & Mag. N. H.* 1844, xiii. p. 362; *Gray, Gen. Birds*, iii. p. 648 (1844); *Reichenb. Syst. Av., Natatores*, pl. 21. fig. 786 (1848–50); *Hutton, Ibis*, 1865, p. 286, 1867, p. 187; *Layard, Birds S. Afr.* p. 360 (1867); *id. Ibis*, 1867, p. 460; *Butl., Feild. & Reid, Zool.* 1882, p. 428.

Procellaria atlantica, *Gould, Ann. & Mag. N. H.* 1844, xiii. p. 362; *Burm. Syst. Ueb.* iii. p. 445 (1856); *Grill, Zool. Anteckn.* pp. 12, 59 (1858); *Scl. Ibis*, 1860, p. 422; *Gray, Ibis*, 1862, p. 246; *Pelz. Reise Novara, Zool.* i. *Vög.* p. 146 (1869); *Hutton, Cat. Birds N. Zeal.* p. 47 (1871); *Cab. & Reichenow, J. f. Orn.* 1876, p. 329.

Puffinus pacificus, *Gray, Gen. Birds*, iii. p. 647 (1844).

Pterodroma fuliginosa, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Pterodroma atlantica, *Bp. Consp. Av.* ii. p. 191 (1855); *Gould,*

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* *Œ. fischeri*, Ridgw., and *Œ. scalaris*, Brewster, apparently belong here.
† *Œ. longirostris*, Stejn., probably comes here.

Handb. Birds Austr. ii. p. 449 (1865); *Verr. in Vinson's Voy. Madag.*, Annexe B, p. 4 (1865).

Pterodroma macroptera, *Bp. Consp. Av.* ii. p. 191 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Gould, Handb. Birds Austr.* ii. p. 449 (1865); *Gigl. & Salvad. Ibis*, 1869, p. 66; *Gigl. Faun. Vert. Oceano*, p. 39 (1870); *id. Viagg. 'Magenta'* (see index) (1875).

Æstrelata fuliginosa, *Coues, Pr. Ac. Phil.* 1866, pp. 155, 171; *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Buller, Birds N. Zeal.* ed. 2, ii. p. 221 (1888).

Œstrelata fuliginosa, *Salv. Ibis*, 1888, p. 360.

Æstrelata macroptera, *Coues, Pr. Ac. Phil.* 1866, pp. 155, 171; *Gigl. & Salvad. Ibis*, 1869, p. 66; *Sharpe, ed. Layard's Birds S. Afr.* p. 766 (1884).

Æstrelata gouldi, *Hutton, Ibis*, 1869, p. 351; *id. Trans. N. Zeal. Inst.* ii. p. 79 (1869), 1870, pp. 78, 80.

Procellaria gouldi, *Hutton, Cat. Birds N. Zeal.* p. 47 (1871); *Finsch, J. f. Orn.* 1870, p. 372; *id. op. cit.* 1874, p. 207; *Buller, Birds N. Zeal.* p. 308 (1873); *Reischek, Trans. N. Zeal. Inst.* xviii. p. 81 (1886); *Sandager, Trans. N. Zeal. Inst.* xxii. p. 292 (1890).

Fulmarus atlanticus et macropterus, *Gray, Hand-l.* iii. p. 107 (1871).

Æstrelata atlantica, *Ridgw. Man. N. Am. Birds*, p. 66 (1887).

Majaqueus gouldi, *Buller, Birds N. Zeal.* ed. 2, ii. p. 245 (1888).

Adult male. Dark sooty-brown, nearly uniform, under surface a little paler, forehead and throat greyer: bill and feet black. Total length about 16·5 inches, wing 12; tail, central rectrices 4·5, lateral rectrices 4; bill 1·7, tarsus 1·65, middle and outer toes 2·2, inner toe 1·9. (Specimen *a*.)

Sexes alike.

The bird from Tasmania is rather large (wing 13·0), and the face greyer. It was called *Pterodroma macroptera* (Smith) by Gould, and afterwards described by Hutton as *Œstrelata gouldi*, but the differential characters are not stable.

Hab. Southern Oceans.

a. ♂ ad. sk.	S. Atlantic, lat. 31° 45′ S., long. 5° 43′ W., July 30, 1838 (*J. Gould*).	Salvin-Godman Coll.
b. ♀ ad. sk.	S. Atlantic, lat. 35° 19′ S., long. 10° 32′ E., Aug. 6 (*J. Gould*). (Types of *P. atlantica*, Gould.)	Salvin-Godman Coll.
c. Ad. sk.	S. Atlantic (*J. Gould*).	Salvin-Godman Coll.
d. Ad. sk.	S. Atlantic, lat. 36° 50′ S., long. 27° 50′ W., Feb.	J. Macgillivray [C.].
e. ♂ ad. sk.	S. Atlantic, lat. 34° 43′ S., long. 4° W., Feb.	J. Macgillivray [C.].
f. Ad. sk.	S. Atlantic.	
g. Ad. sk.	S. Africa.	Shelley Coll.
h. ♀ ad. st.	S. Atlantic, lat. 30° S., long. 6° 47′ E.	Sir George Grey [P.].
i. Ad. sk.	S. Indian Ocean, lat. 40¾° S., long. 123° E., June.	J. Macgillivray [C.].
j. ♂ ad. sk.	Off Van Diemen's Land, Aug. 30, 1839 (*J. Gould*).	Salvin-Godman Coll.

k. Ad. sk.	[Southern Ocean] (*Sir J. Brooke*).	Salvin-Godman Coll.
l. Ad. sk.	[Southern Ocean.]	Sir E. Home.
m. Ad. sk.	[Southern Ocean.]	Indian Museum.
n. Ad. sk.	New Zealand.	Purchased.
o, p. Skeletons.	S. Atlantic Ocean.	J. Macgillivray [C.].

2. Œstrelata aterrima.

Pterodroma aterrima, *Bp. Compt. Rend.* xl. p. 191, xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 191 (1855); *Verr. in Vinson's Voy. Madag.*, Annexe B, p. 4 (1865).

Procellaria aterrima, *Schleg. Mus. P.-B.*, vi. Procell. p. 9 (1863); *Poll. & Van Dam, Faun. Madag., Ois.* p. 144 (1868); *Hartl. Vög. Madag.* p. 375 (1877); *Milne-Edw. & Grand. Hist. Madag., Ois.* p. 671 (1885).

Æstrelata aterrima, *Coues, Pr. Ac. Phil.* 1866, pp. 158, 171; *Gigl. & Salvad. Ibis*, 1869, p. 66; *Gigl. Distr. Fauna Vert. Oceano*, p. 39 (1870); *Ridgw. Man. N. Am. Birds*, p. 67 (1887).

Allied to *Œ. macroptera*, but smaller, the bill much shorter but relatively very stout, the general colour slightly greyer; legs dark reddish-flesh-colour, the outer toe and the tips of the rest and the webs between them black. Total length about 14 inches, wing 9·7; tail, central rectrices 4, lateral rectrices 3·1; bill 1·5, tarsus 1·5, middle and outer toes 1·8, inner toe 1·55.

Hab. Western Indian Ocean: Mascarene Islands.

There is no specimen of this species in the Museum. The only one I have seen has been kindly lent me by Professor Newton. It is labelled "♂. St. Denys, Mauritius, 17 April 1890."

3. Œstrelata lessoni.

Procellaria vagabunda, *Solander, MS.*

Procellaria lessoni, *Garnot, Ann. Sc. Nat.* vii. p. 54, pl. 4 (1826); *Gould, Birds Austr.* vii. t. 49 (1848); *Gray, List Anseres Brit. Mus.* p. 163 (1844); *id. Gen. B.* iii. p. 648 (1844); *Reich. Syst. Av., Natatores*, pl. 24. fig. 2605; *Hutton, Ibis*, 1867, p. 188; *Finsch, J. f. Orn.* 1870, p. 373; *id. op. cit.* 1874, p. 207; *Buller, Birds New Zeal.* p. 303, pl. — (1873); *Cab. & Reich. J. f. Orn.* 1876, p. 329.

Puffinus sericeus, *Lesson, Man. d'Orn.* ii. p. 402 (1828); *Gray, Gen. Birds*, iii. p. 647 (1844) (*cf. Salv. Ibis*, 1875, p. 374).

Procellaria leucocephala, *Forster, Descr. Anim.* p. 206 (1844); *Coues, Pr. Ac. Phil.* 1866, p. 142; *Pelz. Reise Novara, Zool.* i. *Vög.* p. 145 (1869).

Puffinus lessoni, *Reich. Syst. Av., Natatores*, pl. 20. fig. 339.

Rhantistes lessoni, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Œstrelata (?) sericeus, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Æstrelata leucocephala, *Bp. Consp. Av.* ii. p. 189 (1855); *Gould, Handb. Birds Austr.* ii. p. 451 (1865).

Adamastor sericeus, *Bp. Consp. Av.* ii. p. 188 (1855); *Coues, Pr. Ac. Phil.* 1866, pp. 122, 142.

Œstrelata lessoni, *Cass. Pr. Ac. Phil.* 1862, p. 327; *Hutton, Ibis*, 1870, p. 396; *Salv. P. Z. S.* 1878, p. 737; *id. Voy.* '*Chall.*,' *Zool.*

ii. pt. viii. p. 144 (1881); *Moseley, Notes Nat. Chall.* p. 208 (1879); *Sharpe, Phil. Trans.* clxviii. p. 126 (1879); *Buller, B. New Zeal.* ed. 2, ii. p. 219 (1888); *id. Tr. N. Zeal. Inst.* xxv. p. 78 (1893).

Æstrelata lessoni, *Coues, Pr. Ac. Phil.* 1866, pp. 142, 170; *Gigl. & Salvad. Ibis*, 1869, p. 66; *Gigl. Distr. Fauna Vert. Oceano*, p. 40 (1870); *id. Viagg. 'Magenta,'* pp. 106, 842, 843, 887 (1875); *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 27 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 14 (1876); *Ridgw. Man. N. Am. Birds*, p. 63 (1887).

Fulmarus lessoni, *Gray, Hand-l. B.* iii. p. 107 (1871).

Adult male. Upper surface grey, darker on the rump, and becoming gradually whiter towards the crown, which is nearly pure white; feathers of the back edged with paler grey; nape and sides of the neck transversely mottled pale grey and white; wings and wing-coverts nearly black; upper tail-coverts and central rectrices pale grey, lateral rectrices nearly white; forehead and entire under surface pure white, region below and in front of the eye black; under wing-coverts dark grey, each feather edged with white, quills grey, white at the concealed portion of the base: bill black; tarsi yellow, distal portion of the toes and webs and the outer toe wholly dark, the rest yellow. Total length about 18 inches, wing 12·2; tail, central rectrices 5, lateral rectrices 3·7; bill 1·9, tarsus 1·8, middle toe 2·4, outer toe 2·35, inner toe 2·1.

Hab. Southern Indian Ocean, Australian and New Zealand Seas.

a. Ad. sk.	[Antarctic Seas.]	Antarctic Exped.
b, *c*. Ad. sk.	Royal Sound, Kerguelen Land (*A. E. Eaton*).	Transit of Venus Exped.
d. ♂; *e*, *f*. ♀ ad. sk.	Betsy Cove, Kerguelen Land.	Voy. H.M.S. 'Challenger.'
g, *h*. ♂ ad. sk.	S. Indian Ocean, lat. 40¾° S., long. 125½° E.	Capt. Stanley [C.].
i. Ad. st.	Cape Seas, lat. 36° 39′ S., long. 10° 3′ E.	Sir George Grey [P.].
j. ♂ ad. sk.	S. Pacific Ocean, lat. 44° S., long. 110½° W.	J. Macgillivray [C.].
k. Ad. sk.	New Zealand.	Sir G. Grey [P.].
l. Ad. sk.	[Antarctic Seas.]	Salvin-Godman Coll.
m, *n*. Skulls.		

4. Œstrelata hæsitata.

Procellaria hæsitata, *Kuhl, Beitr.* p. 142 (1820); *Temm. Pl. Col.* 416 (1826); *Gray, Gen. Birds*, iii. p. 648 (1844); *id. Cat. Brit. Birds*, p. 226 (1863); *Yarrell, Brit. Birds, Suppl.* p. 63 (1845); *Gould, Birds. Austr.* vii. pl. 47 (1845); *Newton, Zool.* 1852, p. 3691; *id. Ibis*, 1859, p. 372; *Schl. Mus. P.-B.*, vi. Procell. p. 13 (1863); *Degl. & Gerbe, Ois. Eur.* ii. p. 374 (1867); *Cab. & Reichenow, J. f. Orn.* 1876, p. 329; *Maynard, Birds E. N. Am.* p. 489 (1879).

Procellaria diabolica, *Lafr. Rev. Zool.* 1844, p. 168; *Lawr. Pr. U.S. Nat. Mus.* i. p. 451 (1879).

Procellaria meridionalis, *Lawr. Ann. Lyc. N. Y.* iv. p. 475 (1848), v. p. 220, pl. 15 (1852); *id. Birds N. Am.* p. 827 (1860).

Procellaria rubritarsi, *Gould, Zool.* 1852, p. 3692.

Puffinus hæsitata, *Reich. Syst. Av., Natatores*, pl. 20. fig. 336.

Æstrelata hæsitata, *Bp. Compt. Rend.* xlii. p. 768 (1856); *Coues, Pr. Ac. Phil.* 1866, pp. 139, 170; *id. Key N. Am. Birds*, p. 328 (1872); *Elliot, Birds N. Am.* ii. pl. 60. f. 1 (1868); *Gigl. & Salvad. Ibis*, 1869, p. 66; *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *A. O. U. Check-l. N. Am. Birds*, p. 102; *Ridgw. Man. N. Am. Birds*, p. 66 (1887); *Cory, Auk*, v. p. 81 (1888); *id. Cat. West Ind. Birds*, p. 84 (1892); *Feilden, Tr. Norf. & Norw. Nat. Hist. Soc.* v. p. 24 (1890); *Lawr. Auk*, viii. p. 61 (1891).

Fulmarus meridionalis, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Æstrelata diabolica, *Bp. Consp. Av.* ii. p. 189 (1855); *id. Compt. Rend.* xlii. p. 768 (1856).

Œstrelata hæsitata, *Newton, Ibis*, 1870, p. 277; *Dresser, Birds Eur.* viii. p. 545, pl. 618 (1880); *B. O. U. List Brit. Birds*, p. 200 (1883); *Saund. ed. Yarrell's Brit. Birds*, iv. p. 8 (1884); *id. Man. Brit. Birds*, p. 713 (1889); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 394 (1884); *Seebohm, Ibis*, 1884, p. 202; *Coues, Check-l. N. Am. Birds*, p. 126 (1882); *id. Key N. Am. Birds*, ed. 2, p. 779 (1884); *Stevens. Birds Norf.* iii. p. 361, pl. 4 (1890).

Fulmarus hæsitatus, *Gray, Hand-l.* iii. p. 106 (1871).

Diablotin, *Lawr. Pr. U.S. Nat. Mus.* i. p. 68 (1878).

Œstrelata, sp., *Lawr. Pr. U.S. Nat. Mus.* i. p. 488 (1879).

Adult. Upper surface sooty brown, a little paler on the upper part of the back; crown black; back of the neck and the upper tail-coverts white, anterior lores and whole under surface white; forehead and region in front and below the eye black, mottled with white; under wing-coverts white, margin of the wing sooty-black; tail black, white on the basal two-thirds and the shafts white: bill black; tarsi and toes yellow, the distal portion of the latter and the webs for the same distance black. Total length about 16 inches, wing 11·3; tail, central rectrices 5, lateral rectrices 3·8; bill 1·7, tarsus 1·56, middle toe 2, outer toe a little shorter, inner toe 1·6.

Hab. West Indies: Haiti and Martinique.

a. Ad. sk. Haiti (*J. Hearne*). Zool. Soc.

5. Œstrelata jamaicensis.

? The larger dark Petterill or Shearwater, *Browne, Jamaica*, p. 482 (1789).

Procellaria jamaicensis, *Bancroft, Zool. Journ.* v. p. 81 (1826).

Blue-Mountain Duck, *Gosse, Birds Jamaica*, p. 437 (1847).

Pterodroma caribbæa, *Carte, P. Z. S.* 1866, p. 93, pl. 10.

Æstrelata (Pterodroma) caribbæa, *Gigl. & Salvad. Ibis*, 1869, p. 66.

Fulmarus caribbæus, *Gray, Hand-l. B.* iii. p. 107 (1871).

Æstrelata caribbæa, *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873).

Œstrelata jamaicensis, *A. & E. Newton, Handb. Jamaica*, 1881, p. 117; *Morris, Nature*, 1881, xxv. p. 151.

Æstrelata jamaicensis, *Ridgw. Man. N. Am. Birds*, p. 67; *Cory, Auk*, v. p. 81 (1888); *id. Cat. West Ind. Birds*, p. 84 (1892)

Adult male. Sooty-brown, nearly uniform, a little darker on the back, paler on the under surface, greyer on the forehead and throat; upper tail-coverts dirty-white; tail sooty-black, the lateral rectrices dirty-white at the base, the shafts of the same colour: bill and feet

black. Total length about 14 inches, wing 11; tail, central rectrices 4·5, lateral rectrices 3·5; bill 1·5, tarsus 1·4, middle and outer toes 1·9, inner toe 1·55.

Sexes alike.

Some specimens are much greyer than others, both on the back, lesser wing-coverts, face, and under surface, including the under tail-coverts. Both forms are found in Jamaica, apparently living together.

Hab. Jamaica.

a.	Ad. sk.	Jamaica (*J. Hill*).	Salvin-Godman Coll.
b.	Ad. st.	Jamaica.	J. Taylor, Esq. [P.].
c.	♂ ad. sk.	Cinchona Plantations, Jamaica, Nov. 17, 1879 (*E. Newton*).	Salvin-Godman Coll.

6. Œstrelata rostrata.

Procellaria rostrata, *Peale, U.S. Expl. Exp.* viii. pp. 296, 338, pl. 82 (1848); *Cass. U.S. Expl. Exp.* p. 412, pl. 41 (1858); *Moseley, Notes Nat. 'Chall.'* p. 521 (1879).

Rhantistes rostrata, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Æstrelata rostrata, *Bp. Consp. Av.* ii. p. 189 (1855); *Coues, Pr. Ac. Phil.* 1866, pp. 144, 170; *Gigl. & Salvad. Ibis*, 1869, p. 66; *Layard, Ibis*, 1877, p. 363, 1882, p. 544; *E. L. & L. C. Layard, Ibis*, 1878, p. 264; *Ridgw. Man. N. Am. Birds*, p. 64 (1887).

Procellaria (Æstrelata) rostrata, *Gray, Cat. Birds Trop. Is. Pac.* p. 56 (1859).

"Entire upper parts pure deep blackish brown, including the under surface of the wings and tail-feathers; everywhere of a nearly uniform tint, but a little darkest on the outer webs and tips of the primaries, and somewhat lighter on the inner webs, especially towards their bases. This colour of the upper parts extends round the sides of the head, neck, and breast; but becomes on the chin, throat, and breast a little paler; and includes the sides under the wings, and crissum. Rest of the underparts, including the under tail-coverts, pure white; the latter, however, have a few isolated brownish streaks; the line of demarcation between the dark and light colours on the breast is not very trenchant. The bill is black. The tarsi are pale yellow; probably flesh-coloured in life. A small space on the lower part of their external aspect, and the whole toes and webs (except a small yellow spot on the inner web near its base) are black. . . . . Length about 14 inches, 'extent 39·5' (*Peale*); wing 11; tail 4·75. Bill along chord of culmen 1·37; height or width at base 0·66; nasal tubes 0·25; from feathers on side of lower mandible to its tip, 1·2. Tarsus 1·75; middle toe and claw 2·25, outer toe and claw 2·12, inner toe and claw 1·8, hallux 0·25. From apex of longest secondary to tip of longest primary in the closed wing, 3·25." (*Coues in Pr. Ac. Phil.* 1866, p. 145.)

Hab. Central Pacific Ocean: Tahiti.

The above description is that of Dr. Coues, who took it from Peale's types in the United States National Museum. There are

no adult specimens in the British Museum, but some are to be found in that of the Jardin des Plantes in Paris. Mr. Layard's specimens are in down, and their determination is quite uncertain.

a, *b*. Pull. sk. Wodin Pass, New Caledonia, March 11, 1877 (*E. L. Layard*). Seebohm Coll.

7. Œstrelata parvirostris.

Procellaria parvirostris, *Peale, U.S. Expl. Exp.* viii. pp. 298, 338, pl. 83 (1848); *Cass. U.S. Expl. Exp.* p. 411 (1858); *Hutton, Ibis*, 1867, p. 188.
Rhantistes parvirostris, *Bp. Compt. Rend.* xlii. p. 768 (1856).
Procellaria (Æstrelata) parvirostris, *Gray, Cat. Birds Trop. Is. Pac.* p. 56 (1859).
Æstrelata parvirostris, *Coues, Pr. Ac. Phil.* 1866, pp. 146, 170; *Gigl. & Salvad. Ibis*, 1869, p. 66; *Ridgw. Man. N. Am. Birds*, p. 64 (1887).
Œstrelata parvirostris, *Lister, P. Z. S.* 1891, pp. 295, 300.

Adult male. Sooty-black, throat and anterior portion of the neck rather paler, the bases of the feathers white; flanks and under wing-coverts and quills sooty-black; under tail-coverts white, the lateral feathers mottled with sooty-black: bill black; tarsi and proximal half of the toes and webs yellow, distal portion of the two latter black. Total length about 15 inches, wing 10·5; tail, central rectrices 4·25, lateral rectrices 3·45; bill 1·5, tarsus 1·3, middle toe 1·7, outer toe a little shorter, inner toe 1·45.

Hab. Central Pacific Ocean.

a. ♂ ad. sk.	Canton I., Phœnix Group, July 1889 (*J. J. L.*).	J. J. Lister, Esq. [P.].
b. ♀ ad. sk.	Canton I., Phœnix Group, July 2 (*J. J. Lister*).	Seebohm Coll.

8. Œstrelata incerta.

Æstrelata inexpectata, *Bp. Consp. Av.* ii. p. 189 (1855) (*nec Forst.*).
Œstrelata inexpectata, *Bp. Compt. Rend.* xlii. p. 768 (1856).
Procellaria incerta, *Schl. Mus. P.-B.*, vi. Procell. p. 9 (1863).
Æstrelata incerta, *Coues, Pr. Ac. Phil.* 1866, pp. 147, 170; *Gigl. & Salvad. Ibis*, 1869, p. 66; *Gigl. Distr. Fauna Vert. Oceano*, p. 41 (1870); *id. Viagg.* '*Magenta*,' pp. 94, 106, 975 (1875); *Ridgw. Man. N. Am. Birds*, p. 64 (1887).
Œstrelata incerta, *Buller, B. New Zeal.* ed. 2, ii. p. 220 (1888).

Adult male. Upper surface brown, darker on the rump, paler on the back of the neck, the feathers of the back and the wing-coverts edged with a paler shade; sides of the neck and breast pale greyish brown, the middle of the throat nearly white; flanks, under tail-coverts, under wing-coverts, axillaries, and quills dark brown: bill black, tarsus and proximal half of the toes and webs yellow, remainder of the latter blackish. Total length about 17·5 inches, wing 12·5; tail, central rectrices 5·5, lateral rectrices 4·2; bill 2, tarsus 1·7, middle and outer toes 2·4, inner toe 2.

Hab. South Atlantic Ocean, near the Cape of Good Hope.

a. ♂ ad. sk.	Cape Seas, lat. 36° S., long. 10° E., Aug. 25, 1888.	W. J. Brown, Esq. [P.].
b. Ad. sk.	Cape Seas, lat. 39° S., long. 9° E., Sept. 8 (*Dr. A. B. Meyer*).	Salvin-Godman Coll.
c. Ad. sk.	South Atlantic Ocean.	T. Parkin, Esq. [P.].

9. Œstrelata mollis.

Procellaria mollis, *Gould*, *Ann. & Mag. N. H.* 1844, xiii. p. 363; *id. Birds Austr.* vii. pl. 50 (1848); *Reich. Syst. Av., Natatores*, pl. 25. figs. 2606–7; *Harcourt, Ann. & Mag. N. H.* 1855, xx. p. 438 (Madeira); *Layard, Ibis*, 1862, p. 98; *id. op. cit.* 1872, p. 337; *Schl. Mus. P.-B.*, vi. Procell. p. 11 (1863); *Newton, Ibis*, 1863, p. 186; *id. op. cit.* 1868, p. 340; *Hutton, Ibis*, 1865, p. 287 (?); *id. op. cit.* 1867, pp. 188, 191; *Pelz. Reise Novara, Zool.* i. *Vög.* p. 146 (1869).

Æstrelata mollis, *Bp. Consp. Av.* ii. p. 190 (1855); *Coues, Pr. Ac. Phil.* 1866, pp. 150, 170; *Gould, Handb. Birds Austr.* ii. p. 453 (1865); *Gigl. & Salvad. Ibis*, 1869, p. 66; *Gigl. Fauna Vert. Oceano*, p. 42 (1870); *Ridgw. Mon. N. Am. Birds*, p. 63 (1887).

Rhantistes mollis, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Fulmarus mollis, *Gray, Hand-l. B.* iii. p. 107 (1871).

Œstrelata mollis, *Salv. Ibis*, 1877, p. 480; *id. P. Z. S.* 1878, p. 738; *id. Voy. 'Chall.,' Zool.* ii. pt. viii. p. 144 (1881); *Sharpe, Phil. Trans.* clxviii. p. 128 (1879); *id. ed. Layard's Birds S. Afr.* p. 766 (1884); *Layard, Ibis*, 1882, pp. 539, 544 (?); *Dalgleish, Ibis*, 1890, p. 386.

Œstrelata philippi (*nec Gray*), *Saund. P. Z. S.* 1880, p. 164.

? Procellaria melanopus, *Gm. Syst. Nat.* i. p. 562 (1788); *Vieill. Enc. Méth.* p. 79 (1823); *Gray, List Anseres Brit. Mus.* p. 164 (1844).

Adult male. Upper surface slate-grey, the feathers of the forehead margined with white, those of the back with a slightly paler shade of grey; wings blackish brown, the greater coverts greyish and edged with whitish, a black patch in front of and beneath the eye; lores, throat, and under surface pure white, sides of the neck freckled with grey, sides of the breast grey; under wing-coverts dark grey, the edge of the wing and the quills blackish; tail grey, lateral rectrices freckled with white, under tail-coverts white: bill black; tarsi and proximal half of the toes and webs flesh-colour, the remainder black. Total length about 14 inches, wing 10·3; tail, central rectrices 4·4, lateral rectrices 3·2; bill 1·4, tarsus 1·4, middle and outer toes 1·7, inner toe 1·5

Female like the male.

Hab. South Seas, northward in the Atlantic Ocean to Madeira.

In some specimens the grey of the sides of the breast meets in the middle; in others the under surface is suffused with grey.

a. ♀ ad. sk.	South Atlantic Ocean, lat. 29° 45′ S., long. 15° 3′ W., July 27, 1838 (*J. Gould*).	Salvin-Godman Coll.	
b. ♂ ad. sk.	South Atlantic Ocean, lat. 29° 45′ S., long. 15° 3′ W., July 27, 1838.	Gould Coll.	(Types of the species.)
c. Ad. sk.	S. Atlantic Ocean, lat. 35° 50′ S., long. 27° 50′ W., Feb. 13, 1847.	J. Macgillivray [C.].	

d. ♀ ad. sk.	S. Atlantic Ocean, lat. 34° 43′ S., long. 4° 0′ W., Feb. 24, 1847.	J. Macgillivray [C.].
e,f. Ad. sk.	Nightingale Is., S. Atlantic, Oct. 14, 1873.	Voy. H.M.S. 'Challenger.'
g. Ad. sk.	S. Indian Ocean, lat. 37° 59′ S., long. 29° 18′ E.	Earl of Crawford and Balcarres [P.].
h. Ad. st.	Kerguelen Land ?	Antarctic Exped.
i. Ad. sk.	N.W. Australia.	Capt. Beckett [C.].
j–l. Ad. st.	S. Australia ?	Sir G. Grey [P.].
m. Ad. sk.	South Seas (*ex Gould*).	Salvin-Godman Coll.
n,o. Ad. sk.	[South Seas.]	Salvin-Godman Coll.

10. Œstrelata magentæ.

Æstrelata magentæ, *Gigl. & Salvad. Ibis*, 1869, pp. 61, 66; *Gigl. Distr. Fauna Vert. Oceano*, p. 41 (1870); *id. Viagg. 'Magenta,'* pp. 843, 884 (1875); *Ridgw. Man. N. Am. Birds*, p. 64 (1887).

Œstrelata magentæ, *Salv. in Rowley's Orn. Misc.* i. p. 251, pl. 30.

"*Æ.* supra intense fusco-nigra, plumis sub quadam luce pallide marginatis, alis, cauda, lateribus, subalaribus ac torque jugulari fusco-nigris; regione ante oculari intensiore; fronte albido-sericea fere argenteo colore perfusa, lateraliter magis conspicue; gula, pectore abdomine albis; subcaudalibus lateraliter cinereo tinctis, scapis parte apicali fuscis; rostro nigro, pedibus carneis, digitis palmisque nigris excepta parte basali interna tarso concolori; iride brunnea. Long. tot. 0^{m}·400, alæ 0^{m}·310, caud. 0^{m}·140, rostr. a fronte 0^{m}·043, tars. 0^{m}·038, dig. med. cum ung. 0^{m}·056." (*Giglioli & Salvadori, Ibis*, 1869, p. 61.)

Hab. South Pacific Ocean, lat. 39° 38′ S., long. 125° 58′ W. of Greenwich.

There are no specimens of this species in the British Museum.

11. Œstrelata phæopygia.

? Procellaria alba, *Bloxham in Byron's Voy.* p. 252: *Gray, Cat. Birds Trop. Is. Pac.* p. 56 (1859) (partim).

Œstrelata phæopygia, *Salv. Trans. Zool. Soc.* ix. p. 507, pl. 88. fig. 1 (1876); *Wilson, Aves Hawaiienses*, part v. (1894).

Procellaria rostrata ?, *Moseley, Notes Nat. 'Chall.'* p. 499 (1879) (*nec Peale*).

Æstrelata sandwichensis, *Ridgw. Pr. U.S. Nat. Mus.* ix. p. 95 (1886); *Stejn. Pr. U.S. Nat. Mus.* x. p. 77 (1887).

Æstrelata phæopygia, *Ridgw. Man. Birds N. Am.* p. 65 (1887); *id. Pr. U.S. Nat. Mus.* xi. p. 104 (1888).

Adult. Upper surface brownish black, the concealed bases of the feathers white with black shafts, the feathers of the back indistinctly edged with grey; forehead, lores, and whole under surface white, region round the eye black, a few indistinct hastate spots on the flanks; under wing-coverts white, the edge of the wing and the quills black; tail black, the lateral rectrices towards the base and the shafts white: bill black; tarsi and proximal half of the inner and middle toes, and the webs between them yellow, the outer toe

and the distal portion of the rest black. Total length about 17 inches, wing 12; tail, central rectrices 5·5, lateral rectrices 3·5; bill 1·65, tarsus 1·6, middle and outer toes 1·9, inner toe 1·6.

Hab. Eastern North Pacific Ocean from the Galapagos to the Hawaiian Archipelago.

a, b. Ad. sk.	Chatham I., Galapagos Arch.	Capt. Kellett and Lieut Wood [C.]. (Types of the species.)
c. Ad. sk.	Kaui, Hawaiian Arch. (*Knudsen*).	Prof. Collett [P.].

12. Œstrelata brevipes.

Procellaria brevipes, *Peale, U.S. Expl. Exp.* viii. pp. 294, 337, pl. 80 (1848), *apud Stejneger.*
Procellaria torquata, *Macgillivray, Zool.* xviii. p. 7133.
Procellaria cooki, *Cass. U.S. Expl. Exp.* p. 414 (1858) (*nec Gray*).
Procellaria desolata, *Schl. Mus. P.-B.*, vi. Procell. p. 13 (1863).
Æstrelata cooki, *Coues, Pr. Ac. Phil.* 1866, p. 152.
Æstrelata desolata, *Coues, Pr. Ac. Phil.* 1866, p. 155; *Gigl. & Salvad. Ibis*, 1869, p. 66.
Fulmarus aneiteimensis, *Gray, Hand-l. Birds*, iii. p. 107 (1871).
Œstrelata leucoptera, *Salv. Ibis*, 1876, p. 393; *Finsch, P. Z. S.* 1879, p. 16; *Salvad. Orn. Pap.* iii. p. 466 (1882).
? Procellaria cærulea, *Layard, P. Z. S.* 1876, p. 498.
Æstrelata leucoptera, *Ridgw. Man. N. Am. Birds*, p. 65 (1887) (*nec Gould*).
Œstrelata torquata, *Salv. Ibis*, 1888, p. 359; *id. op. cit.* 1891, p. 411, pl. 9; *Harting, Zool.* 1890, p. 454.
Æstrelata brevipes, *Stejn. Pr. U.S. Nat. Mus.* xvi. pp. 617–9 (1893).

Adult male. Upper surface slaty-black, the middle of the back, larger wing-coverts, and the upper tail-coverts grey; forehead, cheeks, throat, and under surface white; sides of the breast slaty-grey; under wing-coverts and axillaries white, margin of the wing and quills black; tail greyish black, the lateral rectrices pale grey: bill black; tarsi and proximal half of the toes (except the outer one) yellowish, the rest black. Total length about 11·5 inches, wing 8·7; tail, central rectrices 3·9, lateral rectrices 2·7; bill 1·3, tarsus 1·1, middle and outer toes 1·3, inner toe 1·1.

As in *Œ. mollis*, some specimens have a complete grey band across the breast (whence Macgillivray's name), whilst in others a grey tint suffuses the whole of the under surface except the throat.

Hab. Western Pacific Ocean, New Hebrides, and Fiji Islands, to the Southern-Ice barrier, lat. 68° S. (*Peale*), and straying to the English coast.

a. ♂ ad.; *b.* ♀ ad. sk.	Aneiteum, New Hebrides (*J. Macgillivray*).	Salvin-Godman Coll.
c. ♂ ad.; *d.* ♀ ad. sk.	Aneiteum, New Hebrides, Feb. & Mar. 1859.	J. Macgillivray [C.]. (Types of *P. torquata.*)
e, f. ♀ ad. sk.	Viti Levu, Fiji Is., May 1878 (*T. Kleinschmidt*).	Godeffroy Mus.
g. Ad. st.	Near Aberystwith, Wales.	W. Willis-Bund, Esq. [P.].

13. Œstrelata hypoleuca.

Œstrelata hypoleuca, *Salv. Ibis*, 1888, p. 359; *Seeb. P. Z. S.* 1889, p. 586, 1890, p. 105; *id. B. Japan. Emp.* p. 269 (1890).
Æstrelata hypoleuca, *Stejn. Pr. U.S. Nat. Mus.* xvi. p. 617 (1893).

Adult. Similar to *Œ. torquata*, but rather larger, the bill being distinctly stouter. The feathers of the back are more distinctly edged with grey, and there is less white on the under wing-coverts; the under surface is wholly white. Total length about 13 inches, wing 9; tail, central rectrices 4·65, lateral rectrices 3·2; bill 1·3, tarsus 1·1, middle toe 1·35, outer toe a little shorter, inner toe 1·15.

Hab. North Pacific Ocean.

a. Ad. sk.	Krusenstern Is., N. Pacific (*H. J. Snow*).	Seebohm Coll. (Type of the species.)
b. Ad.; *c*. Pull. sk.	Nakaudoshima, Bonin Is., May 14, June 16, 1890 (*P. A. Holst*).	Seebohm Coll.

14. Œstrelata nigripennis.

Œstrelata cooki, *Cheeseman, Trans. N. Z. Inst.* xxiii. p. 224 (1891) (*nec Gray, fide Hutton*).
Œstrelata nigripennis, *Rothsch. Bull. Orn. Club*, i. p. lvii (1893); *id. Ibis*, 1893, p. 571; *Hutton, P. Z. S.* 1893, p. 750; *Buller, Tr. N. Zeal. Inst.* xxvii. p. 123 (1895).

Adult. Upper surface slaty-grey, with a dark patch on the rump, the feathers of the head and sides of the neck narrowly edged with white, the feathers of the anterior portion of the crown with black discs and white edges, the forehead and lores being nearly pure white, a superciliary spot white, area round the eye dark blackish grey; whole under surface pure white, the sides of the breast slaty-grey; scapulars and wings black, the larger coverts grey, with very narrow white margin; under surface of the wings white, with a wide dark border, the outer primaries black, showing a little white on the exposed portion close to the coverts; tail greyish black, outer rectrices white on their inner webs nearly to the tip, outer web mottled with grey. Total length about 12·5 inches, wing 8·7, tail 4·1, tarsus 1·2, middle and outer toes 1·3, inner toe 1·1.

Hab. Kermadec Is., South Pacific Ocean.

There are several specimens of this species in the Hon. Walter Rothschild's collection.

a, *b*. Ad. sk.	Kermadec Is.	Hon. W. Rothschild [P.]. (Typical specimens.)

15. Œstrelata brevirostris.

Procellaria lugens, *Banks, Icon.* nos. 21, 22 (*apud Kuhl*); *cf. Salv. in Rowley's Orn. Misc.* i. p. 235 (1876).
Procellaria grisea, *Kuhl, Beitr. Zool.* p. 144, f. 9 (1820) (*nec Gm.*); *Schl. Mus. P.-B.*, vi. Procell. p. 12 (1863).
Procellaria brevirostris, *Less. Traité d'Orn.* p. 611 (1828); *Gray, Gen. Birds*, iii. p. 648 (1844); *id. List Anseres Brit. Mus.* p. 163 (1844).

Rhantistes unicolor, *Bp. Compt. Rend.* xlii. p. 768 (1856).
Pterodroma macroptera, *Bp. Consp. Av.* ii. p. 191 (1855) (*nec Smith*); *id. Compt. Rend.* xli. p. 191, xlii. p. 768.
Æstrelata grisea, *Coues, Pr. Ac. Phil.* 1866, pp. 148, 170; *Gigl. & Salvad. Ibis*, 1869, p. 66.
Fulmarus griseus, *Gray, Hand-l.* iii. p. 107 (1871).
Æstrelata kidderi, *Coues, Forest & Stream*, Aug. 19, 1875; *id. Bull. U.S. Nat. Mus.* no. 2, p. 28 (Nov. 1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 15 (1876).
Procellaria mollis, *Cab. & Reich. J. f. Orn.* 1876, p. 329.
Œstrelata brevirostris, *Salv. in Rowley's Orn. Misc.* i. p. 235; *id. P. Z. S.* 1878, p. 738; *id. Voy. 'Chall.,' Zool.* ii. pt. viii. p. 145 (1881); *Sharpe, Phil. Trans.* clxviii. p. 124 (1879).
Æstrelata brevirostris, *Ridgw. Man. N. Am. Birds*, p. 66 (1887).

Adult. Slaty-grey, nearly uniform, smaller wing-coverts brownish with grey edges, quills and tail darker grey; under surface a little paler; under wing-coverts grey, with dark shafts: bill black; tarsi and toes dusky. Total length about 14·5 inches, wing 10; tail, central rectrices 4·1, lateral rectrices 3·15; bill 1·4, tarsus 1·42, middle and outer toes 1·8, inner toe 1·46.

Young. Covered with brown down, which is replaced by the grey feathers of the adult.

Hab. South Atlantic and South Indian Oceans.

a–c. Ad. sk.	Christmas Harbour, Kerguelen Land.	Antarctic Exped.
d, e. Ad. sk.	Kerguelen Land.	Lt. A. Smith [P.].
f. ♂; *g.* ♀ ad. sk.	Christmas Harbour, Kerguelen Land, July 15, 1840.	Dr. R. McCormick [P.].
h. ♀ ad. sk.	Christmas Harbour, July 15, 1840 (*R. McCormick*).	Salvin-Godman Coll. (Type of *P. unicolor*, Gould, MS.)
i. ♀ ad. sk.	Royal Sound, Kerguelen Land (*A. E. Eaton*).	Transit of Venus Exp.
j. Pull. sk.	Kerguelen Land.	Voy. H.M.S. 'Challenger.'
k. Ad. sk.	Tristan d'Acunha.	Capt. Carmichael [P.].

16. Œstrelata solandri.

Procellaria melanopus, *Natt. nec Gm.* (*fide Gould*).
Procellaria solandri, *Gould, P. Z. S.* 1844, p. 57; *id. Ann. & Mag. N. H.* 1844, xiii. p. 353; *Gray, Gen. B.* iii. p. 648 (1844).
Cookilaria solandri, *Bp. Compt. Rend.* xl. p. 190; *id. Consp. Av.* ii. p. 190 (1855).
Pterodroma solandri, *Gould, Handb. Birds Austr.* ii. p. 450 (1865).
Æstrelata solandri, *Coues, Pr. Ac. Phil.* 1866, pp. 148, 170; *Gigl. & Salvad. Ibis*, 1869, p. 66.
Fulmarus solandri, *Gray, Hand-l. B.* iii. p. 107 (1871).

Adult male. Dark grey, head dark brown, back and wing-coverts edged with dark brown; face and whole under surface greyish brown, the half-concealed bases of the feathers pure white; under wing-coverts dark greyish brown, the quills black, the bases of the

inner webs white: bill, tarsi, and toes black. Total length about 18 inches, wing 12; tail, central rectrices 5, lateral rectrices 3·8; bill 1·8, tarsus 1·7, middle and outer toes 2·2, inner toe 1·85.

Hab. Coast of Australia.

a. ♂ ad. sk.	Bass's Straits, Mar. 13 (1839).	Gould Coll. (Type of the species.)

17. Œstrelata externa.

Œstrelata externa, *Salv. Ibis*, 1875, p. 373.
Æstrelata externa, *Ridgw. Man. N. Am. Birds*, p. 68 (1887).

Adult. Upper surface greyish black, the bases of all the feathers white, those of the back edged with pale grey; the back of the neck white, each feather edged with very pale grey; wings outwardly black, the larger coverts edged with greyish white; forehead and entire under surface pure white, cheeks mottled with dark grey; under wing-coverts almost to the edge of the wing and axillaries white, quills black, the bases of the inner webs white; tail greyish black, the inner webs of the lateral rectrices and the shafts adjoining towards the base white: bill black; tarsi and proximal half of the toes yellow, remainder black. Total length about 16 inches, wing 11·5; tail, central rectrices 5, lateral rectrices 3·9; bill 1·8, tarsus 1·45, middle and outer toes 1·8, inner toe 1·55.

Young. Covered with brown down, whiter on the under surface. This is succeeded by the fully adult plumage.

Hab. Coast of Chili, breeding on Masafuera I.

a. Ad. sk.	Masafuera I. (*Leybold*).	Salvin-Godman Coll.	
b. Pull. sk.	Masafuera I. (*Leybold*).	Salvin-Godman Coll.	(Types of the species.)

18. Œstrelata cervicalis. (Plate VI.)

Œstrelata cervicalis, *Salv. Ibis*, 1891, p. 192; *Hutton, P. Z. S.* 1893, p. 751; *Buller, Tr. N. Zeal. Inst.* xxvii. p. 124 (1895).
Œstrelata, sp., *Cheeseman, Trans. N. Z. Inst.* xxiii. p. 224 (1891) (*fide Hutton*).

Adult. Similar to *Œ. externa*, but much darker on the upper surface, the feathers of the back hardly showing grey edges; the under wing-coverts are less white, those of the edges of the wing being mingled black and white, the primaries have less white at the base of the inner web, the white portion being almost covered by the longest white coverts. Total length about 19 inches, wing 11·5; tail, central rectrices 5·2, lateral rectrices 4; bill 1·7, tarsus 1·5, middle and outer toes 1·95, inner toe 1·65.

Hab. Kermadec Islands, South Pacific Ocean.

a. Ad. sk.	Kermadec Islands.	Capt. Carpenter [P.]. (Type of the species.)

19. Œstrelata neglecta.

? White-breasted Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 400; *id. Gen. Hist. B.* x. p. 186 (1824).
Norfolk Island Petrel, *Lath. Gen. Syn. Suppl.* ii. p. 334 (1802).
? Procellaria alba, *Gm. Syst. Nat.* i. p. 565 (1788); *Lath. Ind. Orn.* ii. p. 822 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 419 (1817); *Gray, Gen. Birds,* iii. p. 648 (1844).
? Procellaria grisea, *Vieill. Enc. Méth.* p. 75 (1823) (Norfolk I.); *Gray, Gen. Birds,* iii. p. 674 (1844).
? Procellaria variegata, *Vieill. Enc. Méth.* p. 78 (1823).
Daption album, *Steph. in Shaw's Gen. Zool.* xiii. p. 246 (1826).
Rhantistes raoulensis, *Bp. Compt. Rend.* xlii. p. 765 (descr. nulla).
Procellaria (Æstrelata) alba, *Gray, Cat. Birds Trop. Is. Pacif.* p. 56 (1859).
Procellaria philippi, *Gray, Ibis,* 1862, p. 246.
Procellaria neglecta, *Schl. Mus. P.-B.*, vi. Procell. p. 10 (1863); *Finsch, P. Z. S.* 1879, p. 18.
Æstrelata neglecta, *Coues, Pr. Ac. Phil.* 1866, pp. 147, 170; *Gigl. & Salvad. Ibis,* 1869, p. 66; *Gigl. Distr. Fauna Vert. Oceano,* p. 42 (1870); *Ridgw. Man. N. Am. Birds,* p. 67 (1887).
Procellaria mollis, *Finsch, J. f. Orn.* 1870, p. 373, 1874, p. 207.
Fulmarus albus, *Gray, Hand-l. B.* iii. p. 106 (1871).
Œstrelata neglecta, *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 411 (1882); *id. Orn. Pap.* iii. p. 465 (1882); *Salv. P. Z. S.* 1883, p. 431; *Buller, Birds New Zeal.* ed. 2, ii. p. 224 (1888); *id. Tr. N. Zeal. Inst.* xxiii. p. 41 (1890); *id. op. cit.* xxvii. p. 132 (1895); *id. P. Z. S.* 1894, p. 653; *Cheeseman, Tr. N. Z. Inst.* xxiii. p. 225 (1891); *Hutton, P. Z. S.* 1893, p. 752.
Œstrelata mollis, *Buller, Birds N. Zeal.* ed. 2, ii. p. 222 (1888); *id. Trans. N. Zeal. Inst.* xxiv. p. 85 (1892); *Cheeseman, Tr. N. Zeal. Inst.* xxiii. p. 224 (1891).
Œstrelata philippi, *Hutton, P. Z. S.* 1893, p. 755.
Œstrelata leucophrys, *Hutton, P. Z. S.* 1893, p. 752, pl. 63; *Buller, Tr. N. Zeal. Inst.* xxvii. p. 123 (1895).
Œstrelata neglecta, var., *Hutton, P. Z. S.* 1893, p. 754.
Procellaria raoulensis, *Gould, MS.*

Adult male. Upper surface brown, the bases of the feathers white, top of the head darker, feathers of the back indistinctly edged with paler brown, lores and cheeks mottled with brown; under surface white, sides of the neck and breast washed with pale brown; under tail-coverts brown, their bases white; under wing-coverts and axillaries brown, primaries blackish brown, the bases of the inner webs and the shafts adjoining white: bill black; tarsi and basal portion of the toes yellow, their tips black. Total length about 15·5 inches, wing 11·3; tail, central rectrices 4·1, lateral rectrices 3·7; bill 1·55, tarsus 1·5, middle and outer toes 1·9, inner toe 1·65.

Female. Similar to the male.

Great variation exists as to the colour of the under surface, some birds being nearly uniform greyish brown. Specimen *i* has rather greyer plumage than any of the rest of the series.

Hab. South Pacific Ocean.

a. Ad. sk.	Raoul I., Kermadec Group (*J. Macgillivray*).		Salvin-Godman Coll. (Type of *P. raoulensis*, Gould, MS.)

b. ♀ ad. sk.	Raoul I., July 13, 1854.	J. Macgillivray [C.].
c, d. Ad. sk.	Raoul I.	J. Macgillivray [C.].
e. Pull. sk.	Raoul I.	J. Macgillivray [C.].
f. ♂ ad. sk.	Kermadec Is.	J. Macgillivray [C.].
g, h. Ad. sk.	Juan Fernandez, coast of Chili, Mar. 1881 (*A. H. Markham*).	Salvin-Godman Coll.
i. Ad. sk.	Eastern South Pacific Ocean (*Lieut. Macfarlane*).	Salvin-Godman Coll.

20. Œstrelata arminjoniana.

Procellaria sandaliata, *Solander, Gray, Gen. Birds*, iii. p. 648 (1844); *Salv. in Rowley's Orn. Misc.* i. p. 238 (1876).
Rhantistes sandaliata, *Bp. Compt. Rend.* xlii. p. 768 (1856).
Æstrelata arminjoniana, *Gigl. & Salvad. Ibis*, 1869, pp. 62, 66; *Gigl. Distr. Fauna Vert. Oceano*, p. 42 (1870).
Œstrelata arminjoniana, *Salv. in Rowley's Orn. Misc.* i. pp. 234, 252, pl. 31 (1876); *Ridgw. Man. N. Am. Birds*, p. 64 (1887).
Œstrelata mollis (*nec Gould*), *Saund. P. Z. S.* 1880, p. 164.

Adult. Upper surface brown, nearly uniform, the top of the head and the upper tail-coverts a little darker; under surface white, the chin, sides of the neck, and breast mottled with greyish brown, leaving the middle of the throat white, flanks and axillaries greyish brown; under tail-coverts white, the sides mottled with grey; under wing-coverts brown, the primaries white at the base of the inner webs, the shafts brown: bill black; tarsi and proximal half of the middle and inner toes and the webs between them yellow, the outer toe and the distal portion of the rest black. Total length about 16 inches, wing 11·1; tail, central rectrices 4·4, lateral rectrices 3·9; bill 1·5, tarsus 1·35, middle and outer toes 1·75, inner toe 1·45.

Very similar to *Œ. neglecta*, but a rather smaller bird and with smaller bill.

Hab. South Atlantic Ocean in the vicinity of the island of Trinidad.

a. Ad. sk.	Trinidad I., S. Atlantic, Aug. 21.	Earl of Crawford and Balcarres [P.].

21. Œstrelata trinitatis.

Æstrelata trinitatis, *Gigl. & Salvad. Ibis*, 1869, pp. 65, 66; *Ridgw. Man. N. Am. Birds*, p. 67 (1887).
Pterodroma trinitatis, *Gigl. Faun. Vert. Oceano*, p. 40 (1870); *id. Viagg.* '*Magenta*,' p. 976 (1875).
Œstrelata trinitatis, *Salv. in Rowley's Orn. Misc.* i. p. 253, pl. 32 (1876).

"*Æ.* ex toto fuliginoso-nigra, subtus vix pallidior, remigibus nigricantioribus, basi intus pallidioribus; fronte ac capite supra plumis distincte griseo-marginatis; rostro pedibusque nigris: iridibus brunneis. Long. tot. 0^{m}·350, alæ 0^{m}·290–0^{m}·295, caudæ 0^{m}·130, rostr. a fronte 0^{m}·028–0^{m}·031, tars. 0^{m}·034, dig med. cum ung. 0^{m}·046–0^{m}·050." (*Gigl. & Salvad. l. s. c.*)

Hab. South Atlantic Ocean, near the island of Trinidad.

There are no specimens of this bird in the Museum from this locality. It is very questionable if the species is distinct from

Œ. arminjoniana, of which it is probably a dark form, analogous to what is found to be the case in the closely-allied *Œ. neglecta* in the Pacific Ocean.

22. Œstrelata heraldica.

Procellaria leucoptera, *Schl. Mus. P.-B.*, vi. Procell. p. 12 (1863) (*nec Gould*).
Fulmarus philippi (*nec Gray*), *Gray, Hand-l.* iii. p. 106 (1871).
Œstrelata heraldica, *Salv. Ibis*, 1888, p. 357.

Adult. Upper surface dark brown, the feathers of the back indistinctly edged with grey, forehead and cheeks white, mingled with brown; under surface white, breast (narrowly), sides of the neck, flanks, and lateral under tail-coverts vermiculated with grey; under wing-coverts mostly blackish, the longest white with dusky tips, quills blackish with dusky shafts, the inner web white for two thirds of its length from the base, but not touching the shaft; tail blackish, the basal portion of the lateral rectrices white; bill black, tarsi and proximal half of the toes yellow, the rest black. Total length about 14 inches, wing 11·2; tail, central rectrices 4·5, lateral rectrices 3·65; bill 1·5, tarsus 1·4, middle and outer toes 1·75, inner toe 1·5.

Hab. Western Pacific, Chesterfield Is.

a. Ad. sk.	Chesterfield Is. (*J. Macgillivray*).	Salvin-Godman Coll. (Type of the species.)
b. Ad. sk.	Chesterfield Is.	J. Macgillivray [C.].

23. Œstrelata gularis.

Procellaria inexpectata, *Forst. Descr. Anim.* p. 204 (1844) (*apud Hutton, P. Z. S.* 1893, p. 753).
Procellaria gularis, *Peale, U. S. Expl. Exp.* p. 299 (1848).
Æstrelata gularis, *Bp. Compt. Rend.* xlii. p. 768 (1856); *Gigl. & Salvad. Ibis*, 1869, p. 66; *Gigl. Distr. Fauna Vert. Oceano*, p. 40 (1870); *Brewster, Auk*, i. p. 389 (1884); *A. O. U. Check-l. N. Am. Birds*, p. 112 (1886); *Ridgw. Man. N. Am. Birds*, p. 67 (1887).
Procellaria mollis, *Cass. U.S. Expl. Exp.* p. 410 (1858) (*apud Ridgw.*).
Procellaria affinis, *Buller, Trans. N. Zeal. Inst.* vii. p. 215 (1875).
Œstrelata affinis, *Buller, Birds N. Zeal.* ed. 2, ii. p. 223, pl. 41. f. 1 (1888); *id. Trans. N. Z. Inst.* xxiii. p. 41 (1891); *id. op. cit.* xxiv. p. 84 (1892); *id. op. cit.* xxvii. p. 124 (1895).
Œstrelata gularis, *Coues, Key N. Am. B.* ed. 2, p. 750 (1884); *Baird, Brew. & Ridgw. Water-Birds N. Am.* ii. p. 397 (1884); *Salv. Ibis*, 1888, p. 358.

"Inner webs of primaries abruptly white for at least the inner half; wing more than 9 inches; shafts of the quills dark brown. Head, neck, and upper parts plain dark slaty (feathers of the head and neck white beneath surface, those of the back, &c., white at the base); upper tail-coverts and tail brownish ash-grey; lores, chin, throat, and under tail-coverts white, the first mixed with blackish; breast, belly, sides, and flanks plain brownish plumbeous, the feathers pure white immediately beneath the surface; thighs and

chest white, irregularly barred or vermiculated with deep greyish. Wing 10·0, tail 4·0 (graduated for ·9), culmen 1·02, depth of bill at base ·5, tarsus 1·2, middle toe with claw 1·55." (*Ridgway, Man. N. Am. Birds*, p. 67.)

With Mr. Rothschild's permission, I sent a New-Zealand specimen of *Œ. affinis* to Washington, to be compared with Peale's type of *Œ. gularis*. Mr. Ridgway writes to me concerning them as follows:—

"I have carefully compared the bird (i. e. *Œ. affinis*) with the types of *Œ. gularis* (Peale) and *Œ. fisheri*, Ridgw., and have no doubt whatever as to its being of the same species as the former, as you supposed it to be. The type of *Œ. gularis* has the plumage saturated with oil from the skin, and is therefore considerably discoloured; the upper parts being much darkened, and the grey of the under parts browner than in the Rothschild specimen. Making due allowance, however, for this, the plumage is practically identical; while the measurements (which were taken, the two specimens one immediately after the other) are as near the same as possible."

Mr. Rothschild has several specimens of this species in his collection, including the type of *Œ. affinis* (Buller).

Hab. Antarctic Ocean (*Peale*); New Zealand Seas (*Buller*).

a. Ad. sk. New Zealand Seas. Hon. W. Rothschild [P.].

24. Œstrelata fisheri.

Æstrelata fisheri, *Ridgw. Pr. U.S. Nat. Mus.* v. p. 656 (June 1883), vi. p. 18 (1885); *id. Man. N. Am. Birds*, p. 68 (1887); *id. Auk*, 1895, p. 319, pl. 4; *A. O. U. Check-l. N. Am. Birds*, p. 103 (1886).

Œstrelata fisheri, *Coues, Key N. Am. Birds*, ed. 2, p. 780 (1884); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 396 (1884); *Ridgw. Pr. U.S. Nat. Mus.* viii. p. 18 (1885).

"Inner webs of primaries abruptly white for at least the inner half; wing more than 9 inches; back uniform grey; top of the head white, spotted with greyish. Back and scapulars fine bluish grey or plumbeous; lesser wing-coverts slaty blackish; greater and middle coverts slate-grey, broadly margined with white; tail mostly white, irregularly barred and vermiculated with grey; lores, cheeks, chin, throat, middle of chest, and under tail-coverts immaculate pure white; a blackish spot immediately beneath the eye; sides of the neck and chest densely mottled and vermiculated with ash-grey and white, but the former prevailing; lower breast, belly, sides, and flanks smoky plumbeous superficially, but the feathers all pure white immediately beneath the surface. Wing 10·15, tail 4 (graduated for ·9), culmen 1·0, tarsus 1·25, middle toe with claw 1·7." (*Ridgway, Man. N. Am. Birds*, p. 67.)

Hab. North Pacific Ocean, near Alaska.

This species is only known from the type in the United States National Museum at Washington.

Mr. Ridgway has recently sent me the following comparison of *Œ. fisheri* with *Œ. gularis*:—

"*Œ. fisheri* differs conspicuously from *Œ. gularis* in the very

much lighter colour of the upper parts, the mantle being lighter, not darker than the No. 7 grey of my 'Nomenclature of Colours.' The upper tail-coverts and tail still paler, while the entire nape and pileus are white, the former marked with crescentic bars, and the latter more sparsely with cordate and sagittate spots of slate-colour; the white edgings of the greater wing-coverts and secondaries are much broader, and the inner web of the lateral tail-feathers is wholly pure white, the outer web also white, with grey bars. Notwithstanding the much paler coloration of the upper parts, however, the soft brownish grey of the under parts is quite as dark in *Œ. fisheri* as in *Œ. gularis*, and occupies just about the same area; but the well-defined bars on the flanks seen in the latter seem to be quite absent in *Œ. fisheri*." *

25. Œstrelata scalaris.

Æstrelata gularis, *Brewster, Bull. Nutt. Orn. Club*, vi. p. 91 (1881) (*nec Peale*).
Æstrelata scalaris, *Brewster, Auk*, iii. p. 390 (1886); *Ridgw. Man. N. Am. Birds*, p. 68 (1887).

"Inner webs of primaries abruptly white for at least the inner half; wing more than 9 inches. Above, including the whole top of the head, dark bluish grey, the feathers of the back and scapulars broadly bordered terminally with ashy white, the middle and greater wing-coverts similarly marked; chin, throat, chest, centre of breast, and under tail-coverts plain white; rest of the lower parts vermiculated and irregularly barred with slaty-grey or plumbeous, this becoming uniform and somewhat darker on the belly; tail chiefly plain light brownish-grey. Wing 9·88, tail 3·95, culmen 1·03, depth of bill at base ·46, tarsus 1·37, middle toe with claw 1·7." (*Ridgway, Man. N. Am. Birds*, p. 68.)

Hab Unknown; the type was taken in the interior of the State of New York.

The single type-specimen of this species, which is now in Mr. William Brewster's collection, is, he tells me, in poor condition and mounted in a case, and thus unfit to be sent to England for purposes of comparison.

This species seems evidently closely allied to *Œ. gularis* and *Œ. fisheri*, and as Mr. Brewster is the only person who has had the three types under his eye at one time, his original full description and comparison give the most authentic account of the relationship of the three forms.

26. Œstrelata leucoptera.

Procellaria leucoptera, *Gould, P. Z. S.* 1844, p. 57; *Gray, Gen. Birds*, iii. p. 648 (1844).
Procellaria cooki, *Gould, Birds Austr.* vii. pl. 51 (1846) (*nec Gray*).
Cookilaria leucoptera, *Bp. Consp. Av.* ii. p. 190 (1855).
Æstrelata leucoptera, *Gould, Handb. Birds Austr.* ii. p. 454 (1865).

* Since the above note was in type Mr. Ridgway has published a paper with a figure of this species, 'Auk,' Oct. 1895, p. 319, pl 4.

Adult. Upper surface dark slaty-black, the middle of the back, the median and greater wing-coverts, and the tail-coverts dark grey; face, throat, and entire under surface white, forehead and sides of the neck spotted with slaty-black; under wing-coverts white, edge of the wing slaty-black; quills white towards the base of the inner web, shafts dark; tail slaty-black, the outer rectrices grey speckled with white on the inner web: bill black; tarsi yellow; inner and middle toes yellow at the base, the tips and the whole of the outer toe black. Total length about 12 inches, wing 8·5; tail, central rectrices 3·8, lateral rectrices 3·1; bill 1·35, tarsus 1·2, middle and outer toes 1·5, inner toe 1·2.

Hab. East coast of Australia.

a. Ad. sk.	Cabbage Tree I., mouth of Port Stephen Harbour, N.S.W. (*J. Gould*). (One of the types of the species.)	Salvin-Godman Coll.

27. Œstrelata defilippiana.

Æstrelata defilippiana, *Gigl. & Salvad. Ibis*, 1869, pp. 63, 66; *Gigl. Distr. Fauna Vert. Oceano*, p. 43 (1870); *Coppinger, Cruise of the 'Alert,'* p. 86 (1883); *Ridgw. Man. N. Am. Birds*, p. 68.

Œstrelata defilippiana, *Salv. in Rowley's Orn. Misc.* i. p. 255, t. 33 (1876); *id. P. Z. S.* 1883, p. 431; *Sharpe, P. Z. S.* 1881, p. 11; *Tristr. Ibis*, 1881, p. 177; *Ridgw. Pr. U.S. Nat. Mus.* viii. p. 17 (1885).

Adult. Similar to *Œ. leucoptera*, but the upper surface much greyer, the wings and a patch on the rump alone being black, the bill not quite so stout.

Hab. Pacific Ocean, coast of Chili.

a. ♀ ad. sk.	Coast of Chili, lat. 27° 26′ S., long. 72° 30′ W. (*A. H. Markham*).	Salvin-Godman Coll.
b. Ad. sk.	Pacific Ocean, between Callao and Valparaiso, Aug. 1867 (*H. H. Giglioli*). (One of the type specimens.)	Salvin-Godman Coll.
c. ♂ ad.; *d.* ♀ ad. sk.	St. Ambrose I., coast of Chili, 21st July, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
e. ♂ ad. sk.	St. Ambrose I., 21st July (*Dr. Coppinger*).	Salvin-Godman Coll.

28. Œstrelata cooki.

Procellaria cooki, *Gray, in Dieffenb. N. Zeal.* ii. p. 99 (1843); *id. Gen. Birds*, iii. p. 648 (1844); *id. List Anseres Brit. Mus.* p. 164 (1844); *id. Voy. 'Ereb. & Terr.'* i. *Birds*, p. 17, pl. 35 (1846); *id. Ibis*, 1862, p. 246; *Reich. Syst. Av., Natatores*, pl. 22. fig. 793 (1851); *Reischek, Trans. N. Zeal. Inst.* xiv. p. 274; *Finsch, J. f. Orn.* 1870, p. 373, 1874, p. 207; *Hutton, Cat. Birds N. Zeal.* p. 45 (1871); *Buller, Birds N. Zeal.* p. 307 (1873); *Sandager, Tr. N. Z. Inst.* xxii. p. 291 (1889).

Cookilaria velox, *Bp. Consp. Av.* ii. p. 190 (1855).

Rhantistes cooki, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Rhantistes velox, *Bp. Compt. Rend.* xlii. p. 768 (1856).
Æstrelata cooki, *Gould, Handb. Birds Austr.* ii. p. 456 (1865); *Gigl. & Salvad. Ibis*, 1869, p. 66.
? Procellaria velox, *Pelz. Reise Novara, Zool.* i. *Vög.* p. 146 (1869).
Fulmarus cooki, *Gray, Hand-l.* iii. p. 106 (1871).
Œstrelata cooki, *Buller, Birds N. Zeal.* ed. 2, ii. p. 217 (1888); *id. Tr. N. Zeal. Inst.* xxv. p. 78 (1893).

Adult. Similar to *Œ. leucoptera* and *Œ. defilippiana*, much greyer than the former, and with a more slender, usually longer bill than either.

Hab. New Zealand Seas.

a. Ad. sk.	New Zealand (ex *J. Gould*).	Salvin-Godman Coll.
b, c. Ad. sk.	New Zealand.	H. O. Forbes, Esq. [C.].
d. Ad. sk.	New Zealand.	N. Zealand Co. (Type of the species.)

29. Œstrelata longirostris.

Æstrelata leucoptera, *Stejn. Pr. U.S. Nat. Mus.* xiv. p. 490 (1891) (*nec Gould*).
Æstrelata longirostris, *Stejn. Pr. U.S. Nat. Mus.* xvi. p. 618 (1893).

"*Adult* (type, No. 1583, Science College Museum, Tokyo, Japan; Prov. Mutsu, Japan). In coloration exactly like *Œ. brevipes* (Peale), except that the greater wing-coverts are lighter slate-grey, distinctly, though narrowly, margined with white; the feathers of back with paler (white) and more distinct terminal margins, the dusky border to underside of wing narrower and interrupted along outer margin, and inner webs of primaries with a conspicuous lengthened wedge of pure white. Proportions, however, very different from those of *Œ. brevipes*, the bill being much longer and slenderer, and tail less graduated. Length (skin) about 9·75 inches, wing (primaries moulting), tail 3·80, its graduation 0·75, culmen 0·95, depth of bill through middle 0·25, tarsus 1·25, middle toe with claw 1·40.

"Another specimen from the same locality (No. 1584, Science College Museum, Tokyo) is quite identical in coloration, its measurements (except length of wing, the primaries being partly moulted) being as follows:—Total length (skin) about 9·30, tail 4·00, its graduation 0·90, culmen 0·98, depth of bill through middle 0·25, tarsus 1·10, middle toe with claw 1·30." (*Ridgway, in litt.*)

Hab. North Pacific Ocean, Japanese coast.

30. Œstrelata axillaris. (Plate VII.)

Œstrelata axillaris, *Salv. Ibis*, 1893, p. 264; *H. O. Forbes, Ibis*, 1893, p. 542; *Buller, Tr. N. Zeal. Inst.* xxvii. p. 123 (1895).

Adult male. Similar to *Œ. cooki*, but purer grey and without the dark patch on the rump; median and greater wing-coverts greyer, with whiter edges; primary under wing-coverts white, the edge of the wing, especially over the ulna, more broadly black; secondary

under wing-coverts and axillaries black; bill shorter and stouter. Total length about 12 inches, wing 8·3; tail, central rectrices 3·8, lateral rectrices 3·2; bill 1·3, tarsus 1·2, middle and outer toes 1·5, inner toe 1·3.

Hab. Chatham Islands.

a. ♂ ad.; *b*. ♀ juv. sk.	S.E. Island, Chatham Is., May 8, 1892.	H. O. Forbes, Esq. [C.]. (Types of the species.)
c, *d*. Ad. sk.	Chatham Is.	Hon. W. Rothschild [P.].

7. PAGODROMA.

Type.

Pagodroma, *Bp. Consp. Av.* ii. p. 192 (1855); *Coues, Pr. Ac. Phil.* 1866, p. 159 ..... P. nivea.

Range. Antarctic Ocean, in the vicinity of the Ice Barrier.

1. Pagodroma nivea.

Snowy Petrel, *Cook, Itin.* i. p. 33; *Forster, Itin.* i. p. 96; *Lath. Gen. Syn.* iii. pt. 2, p. 408 (1785).

Le Pétrel blanc ou de neige, *Buff. Hist. Nat. Ois.* x. p. 153 (1786).

Procellaria nivea, *Gm. Syst. Nat.* i. p. 562 (1788); *Lath. Ind. Orn.* ii. p. 825 (1790); *Vieill. Nat. Dict. d'Hist. N.* xxv. p. 417 (1817); *id. Enc. Méth.* p. 79 (1823); *Kuhl, Beitr.* p. 145 (1820); *Gray, List Anseres Brit. Mus.* p. 164 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *Peale, U.S. Expl. Exp.* viii. pp. 295, 338, pl. 81 (1848); *Reich. Av. Syst. Nat., Natatores*, pl. 22. figs. 791, 792; *Jacq. & Puch. Voy. au Pôle Sud*, iii. p. 139 (1853); *Cassin, U.S. Expl. Exp.* p. 416 (1858); *Schl. Mus. P.-B.*, vi. Procell. p. 15 (1863).

Daption niveum, *Steph. in Shaw's Gen. Zool.* xiii. p. 243 (1826).

Procellaria candida, *Peale, U.S. Expl. Exped., Birds*, p. 295 (1848).

Pagodroma nivea (*a*, major; *b*, minor), *Bp. Consp. Av.* ii. p. 192 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Coues, Pr. Ac. Phil.* 1866, pp. 160, 171; *Sharpe, Voy. 'Ereb. & Terror,'* i. *Birds*, App. p. 37, pl. 34 (1875); *Salv. P. Z. S.* 1878, p. 737; *id. Voy. 'Chall.', Zool.* ii. pt. viii. p. 144 (1881); *Moseley, Notes Nat. 'Chall.'* p. 253 (1879); *Scl. Ibis*, 1894, p. 498.

Pagodroma nævia, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Pagodroma novægeorgica, *V. Steinen, Deutsch. Exp. Int. Polarf.* ii. p. 250.

Procellaria nivea minor, *Schl. Mus. P.-B.* vi. Procell. p. 16 (1863).

Fulmarus niveus, *Gray, Hand-l.* iii. p. 107 (1871).

Adult. Pure white; bill black; feet yellowish. Total length about 14–16 inches, wing 9·8–11·1, tail 4·3–5·1, bill 1·4–1·55, tarsus 1·3–1·5, middle and outer toes 1·6–1·9, inner toe 1·3–1·5.

Specimens differ greatly in size as indicated in the above measurements.

Hab. Antarctic Seas.

a. Ad. sk.	Falkland Is., July 22, 1850 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
b. ♀ ad. sk.	Falkland Islands.	Antarctic Exped.
c, *d*. ♀ ad. sk.	Ice Barrier, Jan. 14, 1874.	Voy. H.M.S. 'Challenger.'

e. Ad. sk.	Pack Ice, Antarctic Seas, Dec. 31, 1840.	Dr. R. McCormick [P.].
f. ♂ ad. sk.	Louis Philippe Land, Jan. 2, 1843.	Dr. R. McCormick [P.].
g. Ad. sk.	Off Mt. Erebus, Victoria Land, Feb. 17, 1841.	Dr. R. McCormick [P.].
h. Ad. sk.	Nearest Magnetic Pole, Victoria Land, Feb. 18, 1841.	Dr. R. McCormick [P.].
i. Ad. st.	Lat. 77° S.	Antarctic Exped.
j–l. Ad. st.	Antarctic Seas.	Antarctic Exped.
m, n. Ad. sk.	Antarctic Seas.	Antarctic Exped.
o. Ad. sk.	Antarctic Seas.	Gen. Sabine [P.].

8. BULWERIA.

Type.

Bulweria, *Bp. Cat. Met. Ucc. Eur.* p. 81 (1842); *id. Consp. Av.* ii. p. 194 (1856); *Forbes, Voy. 'Chall.', Zool.* iv. pt. xi. p. 38 (1882) ..... B. bulweri.

Æstrelata (partim), *Coues, Pr. Ac. Phil.* 1866, p. 158.

Key to the Species.

a. Bill weaker; wing-coverts paler and greyer .. *bulweri*, p. 420.

b. Bill stouter; wing-coverts all uniform sooty-brown ..... *macgillivrayi*, p. 421.

1. Bulweria bulweri.

Procellaria anjinho, *Heincken, in Brewst. Journ.* 1829, p. 231; *R. T. Lowe, Zool. Journ.* v. p. 384 (1831).

Procellaria bulweri, *Jard. & Selb. Ill. Orn.* ii. pl. 65; *Jard. Edinb. Journ. Nat. & Geogr. Sc.* i. p. 245 (1830); *Reich. Av. Syst. Nat., Natatores*, pl. 21. fig. 787 (1850); *Schl. Mus. P.-B.*, vi. Procell. p. 9 (1863); *Lilford, Coloured Figs. Birds Brit. Is.* pt. vii. (1888).

Puffinus columbinus, *Webb & Berth. Hist. Nat. Canar.* ii. p. 44, pl. 4. fig. 2 (1836–44); *Bolle, J. f. Orn.* 1857, p. 345.

Thalassidroma bulweri, *Gould, Birds Eur.* v. pl. 449 (1837); *Bp. Comp. List*, p. 64 (1838); *Keys. & Blas. Wirb. Eur.* pp. xciii, 238 (1840); *Gray, Gen. Birds*, iii. p. 648 (1844); *id. Cat. Brit. Birds*, p. 224 (1863); *Schl. Rev. Crit. Ois. Eur.* p. cxxxiv (1844); *Macgill. Hist. Brit. Birds*, v. p. 449 (1852); *Hewitson, Eggs Brit. Birds*, ii. p. 522, pl. 145. fig. 3 (1856); *Drouët, Faun. Açor.* p. 127 (1861); *Degl. & Gerbe, Orn. Eur.* ii. p. 388 (1867); *Borggr. Vogelf.* p. 140 (1869); *Arévalo, Av. de Esp.* p. 410 (1887); *Grant, Ibis*, 1890, pp. 443, 445.

Bulweria bulweri, *Bp. Cat. Met. Ucc. Eur.* p. 81 (1842); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 398 (1884); *A. O. U. Check-l. N. Am. Birds*, p. 103 (1886); *Ridgw. Man. N. Am. Birds*, p. 69 (1887); *Stejn. Pr. U.S. Nat. Mus.* xii. p. 378 (1890); *id. op. cit.* xiv. p. 490 (1891); *Seeb. Ibis*, 1891, p. 192; *Stejn. Pr. U.S. Nat. Mus.* xvi. p. 620 (1893).

Thalassidroma columbina, *Reich. Syst. Av., Natatores*, pl. 19. fig. 2727.

Bulweria columbina, *Brehm, Naum.* 1855, p. 296; *id Vogelf.* p. 354; *Bp. Compt. Rend.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 194 (1856); *Dresser, Birds Eur.* viii. p. 551, pl. 614 (1878); *B. O. U. List Brit. Birds*, p. 200 (1883); *Saunders, in Yarrell's*

Brit. Birds, ed. 4, iv. p. 34 (1884); *id. Man. Brit. Birds*, p. 723 (1889); *W. E. Clarke, P. Z. S.* 1887, p. 562; *Koenig, J. f. Orn.* 1890, p. 463; *Meade-Waldo, Ibis*, 1893, p. 207.

Æstrelata bulweri, *Coues, Pr. Ac. Phil.* 1866, pp. 158, 171; *Gigl. & Salvad. Ibis*, 1869, p. 66; *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 230 (1881).

Fulmarus bulweri & anjinho, *Gray, Hand-l.* iii. p. 103 (1871).

Procellaria macgillivrayi, *Tristr. Ibis*, 1881, p. 252 (*nec Gray*).

Œstrelata bulweri, *Coues, Check-l. N. Am. Birds*, 1882, p. 126; *id. Key N. Am. Birds*, ed. 2, p. 780 (1884).

Bulwer's Petrel, *Yarrell, Hist. Brit. Birds*, iii. p. 513 (1843).

Adult. Sooty-brown, nearly uniform; the greater wing-coverts and the chin paler and greyer: bill black; tarsi and bases of the middle and inner toes yellow, the rest of the toes and webs black. Total length about 11 inches, wing 7·7; tail, central rectrices 4·1, lateral rectrices 3; bill 1·2, tarsus 1·05, middle and outer toes 1·2, inner toe 0·95.

Sexes alike.

Hab. Temperate North Atlantic and Temperate North Pacific Oceans.

a. Ad. sk.	Madeira.	Jardine Coll. (Type of the species.)
b. Ad. st.	Madeira.	T. Hope, Esq. [P.].
c–e. Ad. sk.	Madeira.	T. Hope, Esq. [P.].
f–i. Ad. sk.	Madeira.	Salvin-Godman Coll.
j, k. Ad. sk.	Madeira.	Sharpe Coll.
l. Ad. sk.	Deserta Pequeña.	F. D. Godman, Esq. [P.].
m. ♀ ad. sk.	Deserta Grande, May 4, 1890.	W. R. Ogilvie-Grant, Esq. [P.].
n, o. ♂ ♀ ad. sk.	Porto Santo, May 4, 1890.	W. R. Ogilvie-Grant, Esq. [P.].
p–s. ♂ ♀ ad. sk.	Great Salvage I., April 24–25, 1895.	Hon. C. Baring and W. R. Ogilvie-Grant, Esq. [P.].
t. Ad. sk.	Canaries (*Mr. Webb*).	E. Wilson, Esq. [P.].
u–y. ♂ ♀ ad. sk.	Sulphur I., Bonin I., June 8–10, 1890 (*P. A. Holst*).	Seebohm Coll.
z. ♂ ad. sk.	Peel I., Bonin Is., Oct. 20, 1890 (*P. A. Holst*).	Seebohm Coll.
a', *b'*. Ad. sk.	Kaui, Hawaiian Is. (*Knudsen*).	Prof. Collett [P.].
c'. Ad. sk.		Sir E. Belcher.
d'–i'. Skeletons and various bones.	Great Salvage I.	W. R. Ogilvie-Grant, Esq. [P.].

2. Bulweria macgillivrayi.

Thalassidroma (Bulweria) macgillivrayi, *Gray, Cat. Birds Trop. Is. Pac.* p. 56 (1859).

Æstrelata macgillivrayi, *Coues, Pr. Ac. Phil.* 1866, pp. 159, 171.

Thalassidroma macgillivrayi, *Finsch & Hartl. Faun. Centralp.* p. 242 (1867); *Layard, Ibis*, 1876, p. 393.

Fulmarus macgillivrayi, *Gray, Hand-l.* iii. p. 103 (1871).

Bulweria macgillivrayi, *Ridgw. Man. N. Am. Birds*, p. 69 (1887).

Male. Similar to *B. bulweri*, but with a stouter bill; the plumage uniform; the greater wing-coverts and chin the same colour as the rest of the body. Total length about 11·5 inches, wing 8; tail—central rectrices 3·35, lateral rectrices 2·8; bill 1·3, tarsus 1·4, middle and outer toes 1·55, inner toe 1·35.

Hab. Central Pacific Ocean, Fiji Islands.

a. ♂ ad. sk. Ngau, Fiji Is., Oct. 1855 (*F. M. Rayner*). Voy. H.M.S. 'Herald.' (Type of the species.)

Subfamily II. FULMARINÆ.

Key to the Genera.

a. Size very large; nasal tube very long and stout; interramal space feathered throughout; rectrices 16 ..... 9. Ossifraga, [p. 422.

b. Size smaller; nasal tube shorter but well developed; interramal space bare; rectrices 14.

a'. Bill stout, rami of mandible strong, nasal tube large and high at the base, equal to the width of the latericorn; tarsi strong ..... 10. Fulmarus, [p. 424.

b'. Bill more slender; rami of mandible weak; nasal tube smaller, narrower and lower at the base, less than the width of the latericorn; tarsi slender ..... 11. Daption, [p. 428.

c. Smallest; nasal tube short; rectrices 12.

c'. Lamellæ of the sides of the palate rudimentary; first and second primaries subequal ..... 12. Halobæna, [p. 431.

d'. Lamellæ of the sides of the palate well-developed; first primary longest..... 13. Prion, p. 432.

9. OSSIFRAGA.

Type.

Ossifraga, *Hombr. & Jacq. Compt. Rend.* xviii. p. 356 (1844); *iid. Voy. Pôle Sud, Zool.* iii. p. 148, pl. 32. figs. 39–42 (1853); *Bp. Consp. Av.* ii. p. 186 (1855); *Coues, Pr. Ac. Phil.* 1866, p. 31; *Forbes, Voy. 'Chall.', Zool.* iv. pt. xi. p. 42 &c. (1882)..... O. gigantea.

Range. Southern Ocean.

1. Ossifraga gigantea.

Quebrantahuesos, *Bougainville's Voy.* p. 63; *Forst. Voy.* ii. p. 516.

Osprey Petrel, *Forst. Obs.* p. 202.

Le très-grand Pétrel ou Quebrantahuesos, *Buff. Hist. Nat. Ois.* x. p. 157 (1786).

Mouton, *Pernet. Voy.* i. p. 15, pl. 8. fig. 3.

Giant Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 396, pl. 100; *id. Gen. Hist. B.* x. p. 170, pl. 176 (1824); *Nutt. Man. Water-Birds*, p. 329 (1834).

Procellaria gigantea, *Gm. Syst. Nat.* i. p. 563 (1788); *Lath. Ind. Orn.* ii. p. 820 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 418 (1817); *id. Enc. Méth.* p. 74 (1823); *Kuhl, Beitr.* p. 140 (1820); *Aud. Orn. Biogr.* v. p. 330 (1839); *id. Birds Am.* 8vo ed. vii. p. 202 (1844); *Gould, Voy. 'Beagle,'* ii. *Birds*, p. 139 (1841); *id. Birds Austr.* vii.

pl. 45 (1848); *Gray, List Anseres Brit. Mus.* p. 162 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *id. Voy. 'Ereb. & Terr.'* i. *Birds*, p. 17 (1846); *id. Cat. Birds Trop. Is. Pac.* p. 55 (1859); *id. Ibis*, 1862, p. 245; *Forst. Descr. Anim.* p. 343 (1844); *Peale, U.S. Expl. Exp.* viii. p. 338 (1848); *Reich. Av. Syst. Nat., Natatores*, pl. 20. fig. 332, pl. 25. fig. 2612; *Lawr. Birds N. Am.* p. 825 (1860); *Abbott, Ibis*, 1861, p. 164; *Schl. Mus. P.-B.*, vi. Procell. p. 18 (1863); *D. Walker, P. Z. S.* 1863, p. 378; *Hutton, Ibis*, 1865, p. 284, 1867, p. 186; *Layard, Ibis*, 1862, p. 97, 1867, p. 458, 1869, p. 460; *id. Birds S. Afr.* p. 360 (1867); *Pollen & Van Dam, Faun. Madag., Ois.* ii. p. 145 (1868); *Pelz. Reise Novara, Zool.* i. *Vög.* p. 144 (1869); *Sperling, Ibis*, 1868, p. 293: 1872, p. 75; *Finsch, J. f. Orn.* 1870, p. 373, 1874, p. 206; *M.-Edw. & Grand. Hist. Madag., Ois.* p. 670 (1885); *Macfarlane, Ibis*, 1887, p. 208.

Fulmarus giganteus, *Steph. in Shaw's Gen. Zool.* xiii. p. 237 (1826); *Gray, Hand-l.* iii. p. 105 (1871); *Coues, Key N. Am. Birds*, p. 327 (1872); *Bartlett, P. Z. S.* 1879, p. 773.

Procellaria ossifraga, *Forst. Descr. Anim.* p. 343 (1844).

Ossifraga gigantea, *Jacq. & Puch. Voy. Pôle Sud, Zool.* iii. p. 139 (1853); *Bp. Consp. Av.* ii. p. 186 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Brehm, Vogelf.* p. 354 (1855); *Gould, Handb. Birds Austr.* ii. p. 443 (1865); *Coues, Pr. Ac. Phil.* 1866, p. 32; *id. Check-l. N. Am. Birds*, p. 125 (1882); *id. Key N. Am. Birds*, ed. 2, p. 777 (1884); *Elliot, N. Am. Birds*, ii. pl. 59 (1869); *Blas. & Bald., Naum. Vög. Deutschl.* xiii. pt. 2, p. 282; *Hutton, Ibis*, 1869, p. 352, 1872, p. 248; *id. Cat. Birds N. Zeal.* p. 44 (1871); *Gigl. Faun. Vert. Oceano*, p. 48 (1870); *id. Viagg. 'Magenta'* (see index) (1875); *Gurney, in Anderss. Birds Damara-L.* p. 353 (1872); *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Buller, Birds N. Zeal.* p. 297 (1873); *id.* ed. 2, ii. p. 225 (1888); *id. Trans. N. Zeal. Inst.* xxiv. p. 85 (1892); *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 23 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 13 (1876); *Salv. in Rowley's Orn. Miscell.* i. p. 238 (1876); *id. P. Z. S.* 1878, p. 737, 1883, p. 431; *id. Voy. 'Chall.', Zool.* ii. pt. viii. p. 143 (1881); *id. Cat. Strickl. Coll.* p. 629 (1882); *Cab. & Reichenow, J. f. Orn.* 1876, p. 329; *Hartl. Vög. Madag.* p. 373 (1877); *Moseley, Notes Nat. 'Chall.'* pp. 107, 134, 137, 180, 183, 205, 254 (1879); *Sharpe, Phil. Trans.* clxviii. p. 142 (1879); *id. P. Z. S.* 1881, p. 11; *id. ed. Layard's Birds S. Afr.* p. 765 (1881); *Saunders, P. Z. S.* 1880, p. 165; *Kirk, Trans. N. Zeal. Inst.* xvii. p. 60 (1884); *Bocage, Orn. Angola*, p. 517 (1884); *Ridgw. Man. N. Am. Birds*, p. 57 (1887); *id. Pr. U.S. Nat. Mus.* iii. p. 230 (1881); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 363 (1884); *Lucas, Auk*, iv. p. 3 (1887); *H. O. Forbes, Ibis*, 1893, p. 542.

Procellaria, sp. ?, *Abbott, P. Z. S.* 1860, p. 390.

Adult male. Uniform dark chocolate-brown, the edges of the feathers everywhere a little paler than the discs: bill yellow; legs black. Total length about 34 inches, wing 20·5; tail, central rectrices 7, lateral rectrices 5·8; bill 4·2, tarsus 3·6, middle and outer toes 5·3, inner toe 4·4.

Young birds are much browner and often white about the head, but this plumage is changed for the uniform dark chocolate-brown of the adult. Nearly white individuals are not uncommon.

Hab. Southern Seas, north to about lat. 30° S.

a. Juv. sk.	Falkland Is. (*Leconte*).	Salvin-Godman Coll.
b. ♂ ad. sk.	Tom Bay, Straits of Magellan, April 13, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
c. ♂ ad. sk.	Valparaiso, Aug. 4, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
d. Ad. sk.	Valparaiso.	H. Berkeley James, Esq. [P.].
e. Ad. sk.	Valparaiso.	Capt. Brett [P.].
f. ♀ ad. sk.	Coquimbo, Chili, Nov. 1881 (*Capt. A. H. Markham*).	Salvin-Godman Coll.
g. ♀ ad. sk.	S. Pacific Ocean, Nov. 5, 1875.	Voy. H.M.S. 'Alert.'
h. Ad. sk.	S. Pacific Ocean.	Old Collection.
i. Ad. st.	S. Pacific Ocean (white var.).	Old Collection.
j. Ad. sk.	Antarctic Seas.	Antarctic Exped.
k. Ad. sk.	Wellington, New Zealand.	Colonial Museum.
l. Ad. sk.	Snares I., N. Zeal. (white var.) (*Sir P. A. Buckley*).	The Countess of Galloway [P.].
m. Ad. sk.	Norfolk I., Oct. 1885 (*P. Metcalfe*).	Dr. Crowfoot [P.].
n, *o*. Ad. sk.	N.W. Australia.	Capt. Beckett [C.].
p. Ad. sk.	Betsy Cove, Kerguelen Land.	Voy. H.M.S. 'Challenger.'
q. Ad. sk.	Christmas Harbour, Kerguelen Land, May 23, 1840.	Dr. R. McCormick [P.].
r. Ad. st.	Kerguelen Land.	Antarctic Exped.
s, *t*. Ad. sk.	South Atlantic Ocean, lat. 34° S., long. 10° 42′ E.	Earl of Crawford and Balcarres [P.].
u. Ad. sk.	[South Seas.]	
v. Ad. st.	[South Seas.]	
w, *x*. Skeletons.		
y, *z*. Skulls.		
a′. Sternum.		

10. FULMARUS *.

Type.

Fulmarus, *Steph. in Shaw's Gen. Zool.* xiii. p. 233 (1826); *Bp. Consp. Av.* ii. p. 186 (1855); *Coues, Pr. Ac. Phil.* 1866. p. 26; *Forbes, Voy. Chall. Zool.* iv. pt. xi. p. 42 &c. (1882) ..... F. glacialis.

Rhantistes, *Kaup, Natürl. Syst.* p. 105 (1829).

Wagellus, *G. R. Gray, List Gen. Birds*, p. 78 (1840).

Range. North Atlantic and North Pacific Oceans.

Key to the Species.

a. Nasal tubes always, and the whole bill sometimes, dark coloured ..... *glacialis*, p. 424.

b Nasal tubes and whole bill light yellow.

a′. Light phase: upper surface bluish grey, nearly uniform from the back to the tail ..... *glupischa*, p. 427.

b′. Light phase: upper surface bluish grey, with a greater or less admixture of white ..... *rodgersi*, p. 427.

* Refer also to A. W. Anthony, 'Auk,' 1895, p. 100, for a paper on "The Fulmars of Southern California," where (p. 105) *Fulmarus glacialis columba*, subsp. nov., is described.

1. Fulmarus glacialis.

The Fulmar, *Martin, Voy. St. Kilda*, p. 55; *id. Spitsb.* pl. 5. fig C.; *Penn. Brit. Zool.* ii. pp. 257, 431, pl. 91 (1768); *id. Arct. Zool.* ii. p. 534 (1785); *Phipps's Voy.* p. 186; *Bewick, Hist. Brit. Birds*, ii. p. 243 (1804).

Le Pétrel cendré, *Briss. Orn.* vi. p. 143, pl. 12. fig. 2 (1760).

Le Fulmar Pétrel, Puffin gris-blanc de l'isle Saint Kilda, *Buff. Hist. Nat. Ois.* x. p. 162.

Pétrel de l'isle S. Kilda, *Buff. Hist. Nat. Ois.* x. p. 162 (1786); *D'Aub. Pl. Enl.* x. pl. 59.

Fulmar Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 403 (1785); *id. Gen. Hist. B.* x. p. 179 (1824); *Nutt. Man. Water-Birds*, p. 331 (1834); *Yarr. Hist. Brit. Birds*, iii. p. 497 (1843).

Procellaria glacialis, *Linn. Syst. Nat.* i. p. 213 (1766); *Brünn. Orn. Bor.* p. 29 (1764); *Gunn. Act. Nidr.* i. p. 182, fig. 1; *Gm. Syst. Nat.* i. p. 562 (1788); *Lath. Ind. Orn.* ii. p. 823 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 423 (1817); *id. Enc. Méth.* p. 80 (1823); *Kuhl, Beitr.* p. 139 (1820); *Temm. Man. d'Orn.* ii. p. 802 (1820); *F. Boie, Reise durch Norw.* p. 153 (1822); *Werner, Atl., Palmip.* pl. 22; *Schinz, Naturg. Vög.* p. 397, pl. 133 (1832); *Audub. Orn. Biogr.* iii. p. 445 (1835); *id. Birds N. Am.* viii. p. 87, pl. 455; *Bp. Comp. List*, p. 64 (1838); *Gould, Birds Eur.* v. pl. 446 (1837); *id. Birds Gt. Brit.* v. pl. 52 (1873); *Keys. & Blas. Wirb. Eur.* pp. xciv, 238 (1840); *Naum. Vög. Deutschl.* x. pl. 276 (1840); *Selys, Faun. Belge*, p. 156 (1842); *Gray, List Anseres Brit. Mus.* p. 162 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *id. Cat. Brit. Birds*, p. 226 (1863); *id. Hand-l.* iii. p. 105 (1871); *Audub. Birds N. Am.* 8vo ed. vii. p. 204, pl. 455 (1844); *Hewits. Eggs Brit. Birds*, ii. p. 457, pl. 131. fig. 1 (1846); *Schl. Vog. Nederl.* i. p. 530, pl. 329; *id. Dier. Nederl. Vog.* pl. 33. fig. 1 (1861); *id. Mus. P.-B.*, vi. Procell. p. 21 (1863); *Baikie & Heddle, Hist. Nat. Orc.* p. 95 (1848); *Kjærb. Orn. Dan.* pl. 53. fig. 4 (1851); *Reich. Syst. Av., Natatores*, pl. 20. figs. 333–335; *Thomps. Nat. Hist. Irel.* iii. p. 406 (1851); *Brehm, Naum.* 1855, p. 296; *Schrenck, Reis. Amur-l.* p. 517 (? = pacificus); *Evans & Sturge, Ibis*, 1859, p. 168; *Lawr. Birds N. Am.* p. 825 (1860); *D. Walker, Ibis*, 1860, p. 166; *Reinh. Ibis*, 1861, p. 16; *Newton, in Baring Gould's Iceland*, p. 419 (1863); *id. Ibis*, 1865, p. 511; *More, Ibis*, 1865, p. 457; *Turnbull, Birds of E. Lothian*, p. 35 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 371 (1867); *Collett, Norg. Fugle*, p. 75; *Borggr. Vogelf.* p. 140 (1869); *F. Boie, J. f. Orn.* 1869, p. 98; *Gillett, Ibis*, 1870, p. 307; *Harting, P. Z. S.* 1871, p. 123; *Gray, Birds W. Scotl.* p. 499 (1871); *Heugl. Ibis*, 1872, p. 65; *Fallon, Monogr. Ois. Belg.* p. 206 (1875); *Feilden, P. Z. S.* 1877, p. 31; *id. Ibis*, 1877, p. 410; *Mayn. Birds East. N. Am.* p. 489 (1879); *Neale, P. Z. S.* 1882, p. 653; *Dixon, Ibis*, 1885, p. 92; *Booth, Rough Notes Brit. Birds*, iii. p. 115 (1885).

Fulmarus glacialis, *Steph. in Shaw's Gen. Zool.* xiii. p. 234, pl. 27 (1826); *Macgilliv. Hist. Brit. Birds*, v. p. 429 (1852); *Bp. Consp. Av.* ii. p. 187 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Coues, Pr. Ac. Phil.* 1866, p. 27; *id. Key N. Am. Birds*, p. 327 (1872), ed. 2, p. 777 (1884); *id. Check-l. N. Am. Birds*, p. 127 (1882); *Elwes, Ibis*, 1869, pp. 33, 36; *G. C. Taylor, Ibis*, 1869, p. 388; *Droste, J. f. O.* 1869, p. 382; *Dresser, Birds Eur.* viii. p. 535, pl 617 (1878); *Moseley, Notes Nat. 'Chall.'* p. 206 (1879); *Salv. Cat. Strickl. Coll.* p. 630 (1882); *B. O. U. List Brit. Birds*, p. 199 (1883); *Stearns, Pr. U.S. Nat. Mus.* vi. p. 122 (1883); *id. New Engl. Bird-Life*, ii. p. 380 (1883); *Collins, Auk*, i. p. 238 (1884)

Baird, Brew., & Ridgw. Water-Birds N. Am. ii. p. 366 (1884); *Saund. in Yarrell's Brit. Birds*, ed. 4, iv. p. 1 (1884); *id. Man. Brit. Birds*, p. 711 (1889); *Seeb. Hist. Brit. Birds*, iii. p. 430, pl. 56 (1885); *Turner, Pr. U.S. Nat. Mus.* viii. p. 253 (1885); *Fischer & Pelz. Vög. u. Säug. Jan Mayen*, p. 120 (1886); *A. O. U. Check-l. N. Am. Birds*, p. 99 (1886); *Ridgw. Man. N. Am. Birds*, p. 57 (1887); *Chamberlain, Auk*, vi. p. 215 (1889); *Patterson, Ibis*, 1889, p. 580; *Stevens. Birds Norf.* iii. p. 359 (1890); *Borrer, Birds Sussex*, p. 281 (1891); *Buckl. & Harvie-Brown, Vert. Faun. Orkn.* p. 243 (1891); *Lilford, Birds Northamptonshire*, p. 414 (1893).

Procellaria hiemalis, *C. L. Brehm, Vög. Deutschl.* p. 800 (1831).

Procellaria minor, *Kjærb. J. f. Orn.* 1854, p. lix; *id. Orn. Dan., Suppl.* (2) pl. 7. fig. 2 (1854).

Procellaria borealis, *Brehm, Naum.* 1855, p. 296.

Fulmarus glacialis, *β.* minor, *Bp. Consp. Av.* ii. p. 187 (1855).

Fulmarus minor, *Bp. Compt. Rend.* xlii. p. 768 (1856).

Adult. Light phase. Upper surface bluish grey; the quills darker but the shafts white; whole head, neck, and under surface pure white, the flanks faintly washed with grey; under wing-coverts and axillaries white, the edge of the wing dark grey: bill dark, the tip of the maxilla and the lower edge of the mandible yellow; feet yellowish flesh-colour, the outer toe darker. Total length about 18·5 inches, wing 13·2; tail, central rectrices 5, lateral rectrices 4·5; bill 2·1, tarsus 2, middle toe 2·6, outer toe 2·7, inner toe 2·2.

Dark phase. Uniform dusky grey, a little paler on the under surface.

Sexes alike.

Hab. North Atlantic Ocean.

a. Ad. sk.	Baffin's Bay, lat. 75° 15′ N., long. 62° 30′ W. (*Dr. Robertson*).	Voy. H.M.SS. 'Enterprise' and 'Investigator.'
b. ♀ ad. sk.	Lichtenfels, S. Greenland, Oct. 23, 1871 (*Dr. O. Finsch*).	Sharpe Coll.
c. Ad. sk.	Greenland.	The Admiralty [P.].
d. Ad. st.	Greenland.	The Admiralty [P.].
e. Ad. sk.	Labrador (*Möschler*).	Salvin-Godman Coll.
f. Ad. st.	North Sea.	Old Collection.
g. Ad. sk.	N. Atlantic Ocean, lat. 75° 25′ N., long. 10° W.	Capt. D. Gray [P.].
h. Ad. sk.	N. Atlantic Ocean, lat. 75° 25′ N., long. 10° W. (White var.)	Capt. D. Gray [P.].
i–l. Ad. st.	St. Kilda.	Theodore Walker, Esq. [P.].
m. ♀ ad. sk.	St. Kilda, June 6, 1884 (*C. Dixon*).	Seebohm Coll.
n. Juv. sk.	St. Kilda (*C. Dixon*).	Seebohm Coll.
o. Juv. sk.	St. Kilda.	Rev. H. A. Macpherson [P.].
p. Pull. st.	Orkneys.	Bullock's Coll.
q. Ad. sk.	North Sea.	
r. Ad. sk.	Spitzbergen.	The Admiralty [P.].
s. Ad. sk.	Heligoland (*H. Gätke*).	Seebohm Coll.
t–v. Ad. sk.	[North Sea.]	Purchased.
w. Ad. st.	[Yarmouth.]	Purchased.
x. Skeleton.		
y–e′. Sterna.		

2. Fulmarus glupischa.

Procellaria glacialis, *Pall. Zoogr. Ross.-As.* ii. p. 312 (1811) (*nec Linn.*); *Peale, U.S. Expl. Exp.* viii. p. 338 (1848); *Swinh. P. Z. S.* 1863, p. 330.

Procellaria pacifica, *Audub. Orn. Biogr.* v. p. 331 (1839) (*nec Gm.*); *id. Birds N. Am.* 8vo ed. vii. p. 208 (1844); *Gray, Gen. Birds*, iii. p. 648 (1844); *Lawr. Birds N. Am.* p. 826 (1860); *Schl. Mus. P.-B.*, vi. Procell. p. 22 (1863).

Fulmarus pacificus, *Bp. Compt. Rend.* xlii. p. 768 (1856); *Coues, Pr. Ac. Phil.* 1866, p. 28; *id. Key N. Am. Birds*, ed. 2, p. 778 (1884); *Elliot, N. Am. Birds*, i. Introd. (1869); *Blakist. & Pryer, Trans. As. Soc. Jap.* x. p. 106 (1882); *Blakist. Amend. List Birds Jap.* p. 21 (1884); *Dyb. & Tacz. Bull. Soc. Orn. Fr.* 1884, p. 147.

Fulmarus glacialis *a.* pacificus, *Bp. Consp. Av.* ii. p. 187 (1856).

Fulmarus glacialis, var. pacificus, *Coues, Key N. Am. Birds*, p. 327 (1872).

Fulmarus glacialis, *Seeb. Ibis*, 1879, p. 25; *id. Birds Jap. Emp.* p. 268 (1890).

Fulmarus glacialis pacificus, *Coues, Check-list N. Am. Birds*, p. 125 (1882); *id. Key N. Am. Birds*, ed. 2, p. 778 (1884).

Fulmarus glacialis glupischa, *Stejn. Auk*, i. p. 234 (1884); *id. Bull. U.S. Nat. Mus.* no. 29, p. 91, pl. 6. figs. 1, 2 (1885); *id. Pr. U.S. Nat. Mus.* x. p. 125 (1887); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 366 (1884); *Turner, Auk*, ii. p. 158 (1885); *id. Contr. Nat. Hist. Alaska*, p. 129 (1886); *A. O. U. Check-l. N. Am. Birds*, p. 99 (1886); *Blakist. Pr. U.S. Nat. Mus.* ix. p. 655 (1886); *Ridgw. Man. N. Am. Birds*, p. 57 (1887); *id. Pr. U.S. Nat. Mus.* xvi. p. 664 (1893); *Towns. Pr. U.S. Nat. Mus.* xiii. p. 142 (1890); *Nikolski, Ile de Sakhal.* p. 273; *Tacz. Mém. Ac. St. Pétersb.* xxxix. p. 1064 (1893); *Loomis, Pr. Cal. Ac. Sc.* ser. 2, v. p. 216 (1895).

Adult. Light phase similar to *F. glacialis*, and only to be distinguished by the pale colour of the nasal tubes.

Dark phase. Similar to that of *F. glacialis*, but darker.

Hab. North Pacific Ocean, southwards on the American coast to Western Mexico.

a. Ad. sk.	Petropaulovski.	Capt. Kellett and Lieut. Wood [P.].
b. ♂ ad. sk.	Amurland, July 14, 1854 (*Dr. Schrenck*).	Seebohm Coll.
c. ♂ ad. sk.	Kurile Is., July (*Blakiston*).	Seebohm Coll.
d. ♂ ad. sk.	Kurile Is., July.	Capt. Blakiston [P.].
e. Ad. sk.	Kurile Is. (*H. J. Snow*).	Salvin-Godman Coll.
f, g. Ad. sk.	Kurile Is. (*H. J. Snow*).	Seebohm Coll.
h. Ad. sk.	Bering's Straits.	Purchased.
i. ♀ ad. sk.	San Diego, California (*H. W. Henshaw*).	Salvin-Godman Coll.

3. Fulmarus rodgersi.

Fulmarus rodgersi, *Cassin, Pr. Ac. Phil.* 1862, p. 290; *Coues, Pr. Ac. Phil.* 1866, p. 29; *id. Key N. Am. Birds*, p. 327 (1872), ed. 2, p. 778 (1884); *id. Check-list N. Am. Birds*, p. 125 (1882); *Dall, Trans. Chic. Ac. Sc.* i. p. 303 (1869); *Baird, Trans. Chic. Ac. Sc.* i. p. 323, pl. 34. fig. 1 (1869); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 223 (1880); *Shufeldt, Pr. U.S. Nat. Mus.* vii. p. 329 (1884).

Fulmarus glacialis, var. rodgersi, *Coues, Orn. Prybilov Is.* (1874).
Fulmarus glacialis, *H. W. Elliot, Seal-Islands of Alaska*, p. 131 (1882).
Fulmarus glacialis rodgersi, *Coues, Check-l. N. Am. Birds*, p. 125 (1882); *id. Key N. Am. Birds*, ed. 2, p. 775 (1884); *Nelson, Cruise 'Corwin,'* p. 112 (1883); *id. Rep. Nat. Hist. Alaska*, p. 62, pl. 2. fig. 2 (1888); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii p. 367 (1884); *Ridgw. Man. N. Am. Birds*, p. 58 (1887); *Loomis, Pr. Cal. Ac. Sc.* ser. 2, v. p. 216 (1895).

Adult. Light phase. Similar to that of *F. glacialis*, but the back and rump distinctly mingled with white, the tail darker.

No dark phase known.

Hab. North Pacific Ocean, including Bering's Sea.

a. ♂ ad. sk.	St. George's I., Alaska (*H. W. Elliot*).	Salvin-Godman Coll. (Compared with the type.)
b. Ad. sk.	[N. Pacific Ocean.]	Capt. Kellett and Lieut. Wood [P.].

11. DAPTION.

Type.

Daption, *Steph. in Shaw's Gen. Zool.* xiii. p. 239 (1826); *Bp. Consp. Av.* ii. p. 188 (1855): *Coues, Pr. Ac. Phil.* 1866, p. 162; *Forbes, Voy. Chall., Zool.* iv. pt. xi. p. 42 &c. (1882); *Shufeldt, Pr. U.S. Nat. Mus.* vii. p. 378 (1887) ..... D. capensis.

Range. Southern Ocean.

1. Daption capensis.

Pintado Petrel, *Dampier, Voy.* iii. p. 96; *Forster, Voy.* i. p. 489; *Hawksw. Voy.* i. p. 556; *Lath. Gen. Syn.* iii. pt. 2, p. 40 (1785); *id. Gen. Hist.* x. p. 178 (1824).

The White and Black-spotted Peteril, *Edw. Nat. Hist.* ii. p. 90, pl. 90. f. 1 (1747).

Le Pétrel tacheté appelé vulgairement Damier, *Briss. Orn.* vi. p. 146 (1760).

Le Pétrel blanc et noir ou Damier, *Buff. Hist. Nat. Ois.* x. p. 146 (1786); *Pernet. Voy.* ii. p. 72; *D'Aub. Pl. Enl.* 964.

Procellaria capensis, *Linn. Syst. Nat.* i. p. 213 (1766); *Gm. Syst. Nat.* i. p. 565 (1788); *Lath. Ind. Orn.* ii. p. 822 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 423 (1817); *id. Enc. Méth.* p. 78 (1823); *Kuhl, Beitr.* p. 140 (1820); *Less. Man. d'Orn.* ii. p. 348 (1828); *Hahn, Vög. aus Asia, &c.*, Liefr. xix. (1836); *Vigors in Voy. 'Blossom,' Zool.* p. 39 (1839); *Gray, List Anseres Brit. Mus.* p. 164 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *id. Cat. Birds Trop. Is. Pac.* p. 56 (1859); *id. Ibis*, 1862, p. 246; *Peale, U.S. Expl. Exp.* viii. p. 338 (1848); *Reich. Av. Syst. Nat., Natatores*, pl. 20. figs. 337–8 (1850); *Jacq. & Puch. Voy. Pôle Sud*, iii. p. 138 (1853); *Grill, Zool. Anteckn.* pp. 12, 58 (1858); *Schl. Mus. P.-B.*, vi. Procell. p. 14 (1863); *Degl. & Gerbe, Orn. Eur.* ii. p. 372 (1867); *Layard, Birds S. Afr.* p. 361 (1867); *Pollen & Van Dam, Faun. Madag., Ois.* ii. p. 145 (1868); *Pelz. Reise Nor., Zool.* i., *Vög.* p. 145 (1869); *Hutton, Cat. Birds N. Zeal.* p. 45 (1871); *Sperling, Ibis*, 1872, p. 76; *Hutton, Ibis*, 1872, p. 249; *Milne-Edw. & Grand. Hist. Mad., Ois.* p. 671 (1885).

Daption capensis, *Steph. in Shaw's Gen. Zool.* xiii. p. 241, pl. 28

(1826); *Gould, Voy.* '*Beagle*,' ii. *Birds*, p. 140 (1841); *id. Birds Austr.* vii. pl. 53 (1847); *id. Handb. Birds Austr.* ii. p. 469 (1865); *Bp. Consp. Av.* ii. p. 188 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Lawr. Birds N. Am.* p. 828 (1860); *Layard, Ibis*, 1862, p. 97, 1863, p. 245; *D. Walker, P. Z. S.* 1863, p. 379; *Hutton, Ibis*, 1865, p. 287, 1867, p. 188, 1874, p. 42; *Coues, Pr. Ac. Phil.* 1866, pp. 162, 171; *id. Key N. Am. Birds*, p. 328 (1872); *Saunders, Ibis*, 1866, p. 124; *id. P. Z. S.* 1880, p. 164; *Hume, Ibis*, 1870, p. 438; *id. Stray F.* vii. pp. 442, 463 (1878), viii. p. 115 (1879); *Finsch & Hartl. Vög. Ost-Afr.* p. 816 (1870); *Gigl. Faun. Vert. Oceano*, p. 46 (1870); *id. Viagg.* '*Magenta*' (see index) (1875); *Gurney in Anderss. Birds Damara-L.* p. 353 (1872); *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Buller, Birds N. Zeal.* p. 299 (1873), ed. 2, ii. p. 215 (1888); *id. Ibis*, 1874, p. 121; *Finsch, J. f. Orn.* 1870, p. 373, 1874, p. 208; *id. Ibis*, 1888, p. 309; *Salv. Ibis*, 1875, pp. 373, 376; *id. P. Z. S.* 1878, p. 737; *id. op. cit.* 1883, p. 432; *id. Voy.* '*Chall.*', *Zool.* ii. pt. viii. p. 144 (1881); *id. Cat. Strickl. Coll.* p. 630 (1882); *Cab. & Reichenow, J. f. Orn.* 1876, p. 329; *Hartl. Vög. Madag.* p. 377 (1877); *Moseley, Notes Nat.* '*Chall.*' pp. 134, 137, 183, 229 (1879); *Sharpe, Phil. Trans.* clxviii. p. 118 (1879); *id. P. Z. S.* 1881, p. 12; *id. ed. Layard's Birds S. Afr.* p. 767 (1884); *Legge, Birds Ceylon*, p. 1056 (1880); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 230 (1881); *id. Man. N. Am. Birds*, p. 69 (1887); *Bocage, Orn. Angola*, p. 517 (1881); *B. O. U. List Brit. Birds*, p. 199 (1883); *Oates, Handb. Birds Burm.* ii. p. 436 (1883); *Coppinger, Cruise of the* '*Alert*,' p. 87 (1883); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 400 (1884); *A. O. U. Check-l. N. Am. Birds*, p. 103 (1886); *Lucas, Auk*, iv. p. 4 (1887); *Shufeldt, Pr. U.S. Nat. Mus.* x. p. 378 (1887); *Cheeseman, Tr. N. Zeal. Inst.* xxiii. p. 224 (1891); *Aplin, Ibis*, 1894, p. 212; *Scl. Ibis*, 1894, p. 499.

Procellaria punctata, *Ellman, Zoologist*, 1861, p. 7473.

Cape Hen, *Chapm. Trav. in S. Afr.* ii. p. 425 (1868).

Fulmarus capensis, *Gray, Hand-l.* iii. p. 107 (1871).

Calopetes capensis, *Sundev. Av. Meth. Tent.* p. 142.

Daptium capense, *Coues, Check-l. N. Am. Birds*, p. 126 (1882); *id. Key N. Am. Birds*, ed. 2, p. 779 (1884); *Stearns, New England Bird-Life*, ii. p. 386 (1883); *Saunders, in Yarr. Brit. Birds*, ed. 4, iv. p. 11 (1884); *Meyer, Abbild. Vögel-Skel.* pt. xi. (1886); *Finsch, Ibis*, 1888, p. 309.

Daptrion capensis, *Tacz. Orn. Pér.* iii. p. 465 (1886).

Adult. Upper surface white, each feather broadly tipped with dusky black, the feathers of the head and back of the neck black to their bases, the lesser wing-coverts wholly dusky, the median coverts with a white margin to the outer web; quills outwardly black: inner webs white nearly to the tip, the bases of the outer webs, except the outermost primary, also white; under surface white, the chin dusky, and the feathers of the throat and the under tail-coverts tipped with dusky; under wing-coverts white, margin of the wing and tips of the axillaries dusky; tail white, tipped with dusky: bill and feet black. Total length about 16 inches, wing 10·5, tail 3·9, bill 1·7, tarsus 1·9, middle and outer toes 2·3, inner toe 1·85.

Hab. Southern Seas generally, north to Ceylon, and to lat. 5° S. on the coast of Peru.

a. Ad. sk.	South Atlantic Ocean off Cape Corrientes, Oct. 28, 1875.	H. Durnford, Esq. [C.].
b. Ad. sk.	South Atlantic Ocean, lat. 40° 43′ S., long. 58° 04′ W.	H. Durnford, Esq. [C.].
c. Ad. sk.	[Straits of Magellan.]	Capt. King [P.].
d. Ad. sk.	Straits of Magellan.	Mrs. E. M. Eastwood [P.].
e. ♂ ad. sk.	South Pacific Ocean, off Tres Montes, May 10, 1879 (*Dr. Coppinger*).	Voy. H.M.S. Alert.
f–h. Ad. sk.	Valparaiso.	Capt. Brett [P.].
i. Ad. sk.	Valparaiso.	H. Berkeley James, Esq. [P.].
j. Ad. sk.	Juan Fernandez I. (*E. C. Reed*).	Salvin-Godman Coll.
k. Ad. sk.	Masafuera I. (*Leybold*).	Salvin-Godman Coll.
l. ♂ ad. sk.	Off St. Ambrose I., July 20, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
m. ♀ ad. sk.	Off St. Ambrose I., July 20, 1879 (*Dr. Coppinger*).	Salvin-Godman Coll.
n. Ad. sk.	W. coast of S. America, lat. 25° S., long. 85° W. (*Capt. A. H. Markham*).	Salvin-Godman Coll.
o. Ad. sk.	W. coast of S. America, lat. 20° S., long. 71° W. (*Capt. A. H. Markham*).	Salvin-Godman Coll.
p. ♀ ad. sk.	Coast of Peru off Payta, lat. 5° 5′ S., long. 81° W., July 1883 (*Lt. J. R. Macfarlane*).	Salvin-Godman Coll.
q. Ad. st.	Cape of Good Hope.	Purchased.
r, *s*. Ad. sk.	Cape Seas.	Sir Andrew Smith [P.].
t, *u*. Ad. sk.	Cape Seas.	E. M. Langworthy, Esq. [P.].
v, *w*. Ad. sk.	Cape Seas.	Capt. Harry [P.].
x. Ad. sk.	Cape Seas (*E. L. Layard*).	Shelley Coll.
y. Ad. sk.	Cape Seas, lat. 34° 37′ S., long. 22° 29′ E.	O. Blewitt, Esq. [P.].
z–b′. Ad. sk.	Southern Indian Ocean, lat. 23° 30′ S., Aug. 27.	Earl of Crawford and Balcarres [P.].
c′. Ad. sk.	Between Ceylon and the mainland of India (*Theobald*).	Hume Coll.
d′, *e′*. Ad. sk.	Off Kerguelen Land.	Antarctic Exped.
f′. Ad. sk.	Antarctic Seas, April 1874.	Voy. H.M.S. 'Challenger.'
g′–i′. Ad. sk.	W. Australia.	Sir G. Grey [P.].
j′. Ad. sk.	Australian Seas (*Cockerell*).	Salvin-Godman Coll.
k′. Ad. sk.	At sea, between Australia and New Zealand.	E. Newman, Esq. [P.].
l′. Ad. sk.	New Zealand.	Colonial Mus.
m′. Ad. sk.	New Zealand (*F. W. Hutton*).	Salvin-Godman Coll.
n′. ♂ ; *o′*. ♀ ad. sk.	Foveaux Straits, New Zealand, May 25, 1875 (*F. W. Hutton*).	Hume Coll.

p′, *q′*. Skeletons.
r′. Sternum.

12. HALOBÆNA.

Type.

Halobæna, *Is. Geoffr. St.-Hilaire*, 1836, *fide Bp. Consp. Av.* ii. p. 193 (1856); *Coues, Pr. Ac. Phil.* 1866, p. 162 ..... H. cærulea.

Zaprium, *Coues, Bull. U.S. Nat. Mus.* no. 2, p. 34 (1875) ..... H. cærulea.

Range. Southern Ocean.

1. Halobæna cærulea.

Blue Petrel, *Forster, Voy.* i. p. 91; *Lath. Gen. Syn.* iii. pt. 2, p. 415 (1785); *id. Gen. Hist. Birds*, x. p. 196 (1824).

Another Blue Peteril, *Cook's Voy.* i. p. 32.

Procellaria cærulea, *Gm. Syst. Nat.* i. p. 560 (1788); *Lath. Ind. Orn.* ii. p. 827 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 421 (1817); *id. Enc. Méth.* p. 81 (1823); *id. Gal. Ois.* ii. p. 232 (1825); *Kuhl, Beitr.* p. 145 (1820); *Gray, List Anseres Brit. Mus.* p. 165 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *id. Ibis*, 1862, p. 247; *Gould, Birds Austr.* vii. pl. 52 (1847); *Peale, U.S. Expl. Exp.* viii. p. 338 (1848); *Layard, Birds S. Afr.* p. 361 (1867); *id. Ibis*, 1876, p. 393, 1878, p. 264; *Hutton, Cat. Birds N. Zeal.* p. 47 (1871); *Buller, Birds N. Zeal.* p. 306 (1873); *Finsch, J. f. Orn.* 1870, p. 373, 1874, p. 208; *Finsch & Hartl. Orn. Centralpol.* p. 246 (1867).

Pachyptila cærulea, *Illig. Prodr.* p. 275 (1811); *Steph. in Shaw's Gen. Zool.* xiii. p. 252 (1826).

Procellaria forsteri, *Smith, Ill. Zool. S. Afr.* pl. 54 (1840).

Procellaria similis, *Forst. Descr. An.* p. 59 (1844).

Halobæna cærulea, *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 193 (1856); *Coues, Pr. Ac. Phil.* 1866, pp. 163, 171; *Gould, Handb. Birds Austr.* ii. p. 457 (1865); *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 34 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 17 (1876); *Moseley, Notes Nat. 'Chall.'* p. 181 (1879); *Sharpe, Phil. Trans.* clxviii. p. 141 (1879); *id. Layard's Birds S. Afr.* p. 768 (1884); *Buller, Birds N. Zeal.* ed. 2, ii. p. 214 (1888); *id. Tr. N. Zeal. Inst.* xxv. p. 78 (1893).

Halobæna typica, *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 194 (1856).

Procellaria velox, *Solander? cf. Salv. in Rowley's Orn. Misc.* i. p. 238.

Adult. Upper surface pale ashy-blue, darker on the crown, nape, lesser wing-coverts, outer webs of outer primaries, and the scapulars, the latter tipped with white; feathers of the middle of the forehead and anterior part of the crown widely tipped with white: rest of the forehead and whole under surface pure white, sides of the breast ashy-blue, under wing-coverts, primaries beneath, and axillaries white; outer rectrix white, the two next ashy, the base of the inner web white, the three next ashy with white tips, widest on the middle feather, a slightly darker subterminal ashy band: bill black, the edge of the mandible blue; tarsi and toes blue, the webs flesh-colour. Total length about 11 inches, wing 8·5, tail 3·6, bill 1·4, tarsus 1·3, middle toe 1·6, outer toe a little shorter, inner toe 1·3.

Hab. Southern Seas, between lat. 40° and 60° S.

a. Ad. sk.	Cape of Good Hope.	Sir Andrew Smith [P.]. (Type of *P. forsteri*, Smith.)
b. Ad. sk.	Royal Sound, Kerguelen Land (*Rev. A. E. Eaton*).	Transit of Venus Exped.
c. Ad. sk.	Pacific Ocean near Cape Horn, lat. 50° S., long. 90° W., May 20, 1840 (*J. Gould*).	Salvin-Godman Coll.

13. PRION.

	Type.
Prion, *Lacépède, Mem. l'Inst.* iii. p. 513 (1801); *Bp. Consp. Av.* ii. p. 192 (1856); *Coues, Pr. Ac. Phil.* 1866, p. 167; *Forbes, Voy. 'Chall.', Zool.* iv. pt. xi. p. 42 &c. (1882)	P. vittatus.
Pachyptila, *Illig. Prodr.* p. 274 (1811)	P. vittatus.
Priamphus, *Rafinesque, Anal.* p. 72 (1815), *fide Bp.*	
Pseudoprion, *Coues, Pr. Ac. Phil.* 1866, p. 164	P. desolatus.

Range. Southern Ocean.

Key to the Species.

a. Bill very wide, edges of the maxilla distinctly convex; lamellæ distinctly visible when the bill is shut	*vittatus*, p. 432.
b. Bill narrower, but the edges of the maxilla distinctly convex; lamellæ only visible near the rictus of the closed bill	*banksi*, p. 434.
c. Bill still narrower, edges of the maxilla almost straight; lamellæ invisible	*desolatus*, p. 434.
d. Bill much smaller, more compressed, the unguis large, sides of the maxilla straight, and the head, &c., paler blue-grey	*ariel*, p. 436.

1. Prion vittatus.

Vittated Petrel, *Forst. Voy.* i. p. 153; *id. Observ.* p. 199.
Blue Peteril, *Cook, Voy.* i. p. 29.
Pétrel bleu, *Buff. Hist. Nat. Ois.* x. p. 155.
Broad-billed Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 414 (1785).
Procellaria vittata, *Gm. Syst. Nat.* i. p. 560 (1788); *Kuhl, Beitr.* p. 149 (1820); *Schl. Mus. P.-B.*, vi. Procell. p. 16 (1863); *Pollen & Van Dam, Faun. Madag., Ois.* p. 144 (1868).
Procellaria forsteri, *Lath. Ind. Orn.* ii. p. 827 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 421 (1817).
Prion vittatus, *Lacép. Mém. Inst.* 1801, p. 514; *Gould, Voy. 'Beagle,'* ii. *Birds*, p. 141 (1841); *id. Birds Austr.* vii. pl. 55 (1844); *id. Handb. Birds Austr.* p. 474 (1865); *Gray, List Anseres Brit. Mus.* p. 165 (1844); *id. Gen. Birds*, iii. p. 649 (1844); *id. Voy. 'Ereb. & Terr.', Zool.* i. p. 18 (1846); *id. Ibis*, 1862, p. 247; *id. Hand-list*, iii. p. 108 (1871); *Reich. Av. Syst. Nat., Natatores*, pl. 15. figs. 771–2 (1850); *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 192 (1855); *Layard, Ibis*, 1862, p. 97, 1863, p. 249; *Hutton, Ibis*, 1865, p. 288, 1867, p. 189, 1872, p. 249; *Coues, Pr. Ac. Phil.* 1866, pp. 169, 172; *Pelz. Reise Novara, Zool.* i. *Vög.* p. 147 (1869); *Hutton, Cat. Birds N. Zeal.* p. 48 (1871); *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Buller, Birds N. Zeal.*

p. 312 (1873); *id. op. cit.* ed. 2, ii. p. 212 (1888); *Finsch, J. f. Orn.* 1870, p. 373, 1874, p. 211; *Gigl. Faun. Vert. Oceano*, p. 44 (1870); *id. Viagg. 'Magenta,'* p. 963 (1875); *Hartl. Vög. Madag.* p. 376 (1877); *Sharpe, Phil. Trans.* clxviii. p. 135 (1879); *id. Layard's Birds S. Afr.* p. 769 (1884); *Salv. Cat. Strickl. Coll.* p. 631 (1882); *M.-Edw. & Grandid. Hist. Madag., Ois.* p. 671, pls. 293, 294 (1885); *Hamilton, Tr. N. Zeal. Inst.* xviii. p. 128 (1886); *H. O. Forbes, Ibis*, 1893, p. 542; *Scl. Ibis*, 1894, p. 498.

Pachyptila vittata, *Illig. Prodr.* p. 275 (1811); *Temm. Pl. Col.* 528; *Schinz, Naturg. Vög.* p. 402, pl. 136 (1832); *Burm. Syst. Ueb. Th. Bras.* iii. p. 444 (1856); *Cab. & Reichenow, J. f. Orn.* 1876, p. 328.

Procellaria latirostris, *Vieill. Enc. Méth.* p. 81 (1823).

Pachyptila forsteri, *Steph. in Shaw's Gen. Zool.* xiii. p. 251 (1826); *Jard. & Selb. Ill. Orn.* pl. 47 (1828); *Swains. Class. Birds*, ii. p. 374 (1837).

Prion forsteri, *Reich. Av. Syst. Nat., Natatores*, pl. 15. fig. 777 (1850) (♀); *Bp. Compt. Rend.* xlii. p. 768 (1856).

Prion magnirostris, *Gould, P. Z. S.* 1862, p. 125.

Prion australis, *Potts, Trans. N. Zeal. Inst.* v. p. 205; *id. Ibis*, 1873, p. 85.

Adult male. Upper surface ashy-blue, darker on the head and below the eye; small wing-coverts, ends of the long scapulars (except their white tips), a band across the back, outer primaries and tips of the central rectrices black; lateral rectrices grey with dark shafts; a distinct superciliary stripe and whole under surface white, flanks washed with pale ashy-blue, under wing-coverts and axillaries white; under tail-coverts mottled with ashy-blue: bill blue-black, the unguis yellow; tarsi and toes light blue. Total length about 12 inches, wing 7·6; tail, central rectrices 3·8, lateral rectrices 3·5; bill 1·5, width of bill 0·72–0·8, tarsus 1·3, middle and outer toes 1·45, inner toe 1·25.

Hab. Southern Seas between lat. 40° and 60° S.

Obs. This species has the widest bill of all the Prions, and the lamellæ of the maxilla show plainly when the bill is closed.

a.	♂ ad. sk.	Marion I., Southern Ocean.	Voy. H.M.S. 'Challenger.'
b.	♀ ad. sk.	At sea near Crozette Is. (*Lord Campbell*).	Voy. H.M.S. 'Challenger.'
c.	♂ ad. sk.	St. Paul's I., Indian Ocean, Jan. 1853 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
d.	♂ ad. sk.	Eastern entrance to Bass's Strait, July 11, 1847 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
e.	Ad. sk.	New Zealand.	Sir G. Grey [P.].
f.	Ad. sk.	New Zealand.	Colonial Mus.
g.	♂ ad. sk.	Stewart's I., New Zealand, Mar. 1874 (*F. W. Hutton*).	Hume Coll.
h.	Ad. sk.	New Zealand.	R. B. Sharpe, Esq. [P.].
i.	Ad. sk.	New Zealand, Sept. 2, 1846.	Salvin-Godman Coll.
j, k.	Ad. sk.	New Zealand.	Salvin-Godman Coll.
l.	Ad. sk.	[New Zealand.]	Gould Coll. (Type of *P. magnirostris*, Gould.)
m.	Skull.		

2. Prion banksi.

Prion banksi, *Gould, Ann. & Mag. N. H.* xiii. p. 366 (1844); *id. Handb. Birds Austr.* ii. p. 474 (1865); *Gray, List Anseres Brit. Mus.* p. 165 (1844); *id. Gen. Birds,* iii. p. 649 (1844); *id. Ibis,* 1862, p. 247; *id. Hand-l.* iii. p. 108 (1871); *Reich. Av. Syst. Nat., Suppl. Longip.* pl. x. fig. 776 (1850); *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 193 (1856); *Layard, Birds S. Afr.* p. 362 (1867); *id. Ibis,* 1867, p. 460; *Gigl. Faun. Vert. Oceano,* p. 44 (1870); *id. Viagg. 'Magenta'* (see index) (1875); *Finsch & Hartl. Vög. Ost-Afr.* p. 815 (1870); *Finsch, J. f. Orn.* 1870, p. 373, 1874, p. 211; *Hutton, Cat. Birds N. Zeal.* p. 48 (1871); *Hartl. Vög. Madag.* p. 376 (1877); *Buller, Birds N. Zeal.* p. 311 (1873); *id. op. cit.* ed. 2, ii. p. 211 (1888); *Salv. P. Z. S.* 1878, p. 739; *id. Voy. 'Chall.', Zool.* ii. pt. viii. p. 146 (1881); *Sandager, Trans. N. Zeal. Inst.* xxii. p. 293 (1890).

Pachyptila banksi, *Smith, Ill. Zool. S. Afr., Birds,* pl. 55 (1840).

Prion rossii, *Gray, List Anseres Brit. Mus.* p. 165 (1844); *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 193 (1856).

Procellaria banksi, *Schl. Mus. P.-B.,* vi. Procell. p. 17 (1863); *Pollen & Van Dam, Faun. Madag., Ois.* ii. p. 145 (1868).

Pseudoprion banksi, *Coues, Pr. Ac. Phil.* 1866, pp. 166, 172.

Prion?, *Hume, Stray F.* ii. p. 317 (1874); v. p. 304 (1877); viii. p. 115 (1879).

Very similar in colour to *P. vittatus*, but the bill not so wide (0·5 in.); the lamellæ of the maxilla just visible near the rictus when the bill is closed.

Hab. Southern Seas, usually between lat. 35° and 60° S., but as far north as the Equator in the Malay Archipelago.

a. Ad. sk.	South Atlantic Ocean, lat. 35° 20′ S., long. 9° 43′ W.	Earl of Crawford and Balcarres [P.].
b. ♂ ad. sk.	South Atlantic Ocean, lat. 35° S., long. 0½° E., Nov. 18, 1852 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
c. Ad. sk.	South Atlantic Ocean, lat. 35° 1′ S., long. 6° 15′ E.	Sir G. Grey [P.].
d. Ad. sk.	Cape of Good Hope.	Sir A. Smith [P.]. (Type of *P. banksi*.)
e. ♂ ad. sk.	Cape Seas.	Antarctic Exped.
f. Ad. sk.	Coast of Queensland.	Salvin-Godman Coll.
g, h. Ad. st. & sk.	Coast of Australia.	Sir G. Grey [P.].
i. Ad. sk.	New Hebrides.	Salvin-Godman Coll.
j, k. Ad. sk.	New Zealand.	Sir G. Grey [P.].
l. Ad. sk.	Auckland Is., Dec. 3, 1840.	Dr. R. M'Cormick [P.].
m. Ad. sk.	Auckland Is.	Antarctic Exped.
n. Ad. st.; *o.* Ad. sk.	Antarctic Seas.	Antarctic Exped. (Types of *P. rossii*, Gray.)
p. Ad. sk.	[South Seas.]	Gould Coll.
q. Ad. sk.	[South Seas.]	Old Coll.
r. Skeleton.	Menado, Celebes.	

3. Prion desolatus.

Brown-banded Petrel, *Lath. Gen. Syn.* iii. pt. 2, p. 409 (1785).

Procellaria desolata, *Gm. Syst. Nat.* i. p. 562 (1788); *Lath. Ind. Orn.*

ii. p. 825 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 419 (1817); *Kuhl, Beitr.* p. 143 (1820); *Gray, Gen. Birds*, iii. p. 648 (1844); *Swinh. P. Z. S.* 1863, p. 330 (?).

Procellaria turtur, *Banks, Icon. ined.* no. 15; *Kuhl, Beitr.* p. 143 (1820); *Smith, Ill. Zool. S. Afr., Birds*, pl. 54 (1840); *Gray, List Anseres Brit. Mus.* p. 165 (1844); *id. Gen. Birds*, iii. p. 648 (1844); *Schl. Mus. P.-B.*, vi. Procell. p. 17 (1863); *Layard, Birds S. Afr.* p. 361 (1867).

Procellaria fasciata, *Vieill. Enc. Méth.* p. 79 (1823); ? *Gray, Cat. Birds Trop. Is. Pac.* p. 56 (1859).

Daption desolatum, *Steph. in Shaw's Gen. Zool.* xiii. p. 244 (1826).

Prion turtur, *Gould, Ann. & Mag. N. H.* xiii. p. 366 (1844); *id. Birds Austr.* vii. pl. 54 (1844); *id. Handb. Birds Austr.* ii. p. 472 (1865); *Reich. Av. Syst. Nat., Natatores*, pl. 15. figs. 773–75 (1850); *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 193 (1856); *Pelz. Reise Novara, Zool.* i. *Vög.* p. 147 (1869); *Hutton, Ibis*, 1870, p. 396, 1872, p. 249; *id. Cat. Birds N. Zeal.* p. 48 (1871); *Gigl. Faun. Vert. Oceano*, p. 45 (1870); *id. Viagg. 'Magenta'* (see index) (1875); *Finsch, J. f. Orn.* 1870, p. 373, 1874, p. 212; *Gray, Hand-l.* iii. p. 108 (1871); *Sharpe, Voy. 'Ereb. & Terror,' Birds*, App. p. 34, pl. 29 (1875); *Salv. in Rowley's Orn. Misc.* i. p. 230 (1876); *id. Cat. Strickl. Coll.* p. 631 (1882); *Hartl. Vög. Madag.* p. 377 (1877); *Buller, Birds N. Zeal.* p. 309 (1873); *id. op. cit.* ed. 2, ii. p. 209 (1888); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 411 (1882); *id. Orn. Pap.* iii. p. 467 (1882); *Hamilton, Tr. N. Zeal. Inst.* xviii. p. 128 (1886); *Lucas, Auk*, iv. p. 1 (1887); *H. O. Forbes, Ibis*, 1893, p. 542; *Scl. Ibis*, 1894, p. 498.

?Æstrelata desolata, *Bp. Compt. Rend.* xlii. p. 768 (1856); *Coues, Pr. Ac. Phil.* 1866, p. 155.

Pseudoprion turtur, *Coues, Pr. Ac. Phil.* 1866, pp. 166, 172; *Gurney, in Anderss. Birds Damara-L.* p. 352 (1872).

Pseudoprion desolatus, *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 32 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 16 (1876).

Pachyptila turtur, *Cab. & Reichenow, J. f. Orn.* 1876, p. 328.

Prion desolatus, *Salv. P. Z. S.* 1878, p. 738; *id. Voy. 'Chall.', Zool.* ii. pt. viii. p. 145 (1881); *Sharpe, Phil. Trans.* clxviii. p. 137 (1879); *id. Layard's Birds S. Afr.* p. 769 (1884); *Moseley, Notes Nat. 'Chall.'* p. 207 (1879); *Saunders, P. Z. S.* 1880, p. 165.

Similar to *P. vittatus* and *P. banksi*, but with a still smaller bill than the latter; the sides of the maxilla are nearly straight, not convex, and the lamellæ are not visible near the rictus when the bill is closed.

Hab. Southern Seas, usually between lat. 35° and 60° S., but even as far south as the Ice Barrier, lat 66° 30′ S.

a. ♂ ad. sk.	South Atlantic Ocean, lat. 35° 20′ S., long. 9° 43′ E., Sept. 10.	Earl of Crawford and Balcarres [P.].
b. ♂ ad.; *c.* ♀ ad. sk.	South Atlantic Ocean, lat. 35° 19′ S., long. 10° 32′ E. (*J. G.*).	Gould Coll.
d. Ad. sk.	Coast of Madagascar.	Salvin-Godman Coll.
e. Ad. sk.	Southern Indian Ocean, lat. 36° 57′ S., long. 40° 41′ E., Sept. 14.	Earl of Crawford and Balcarres [P.].
f–h. ♂ ad.; *i, j.* ♀ ad. sk.	Betsy Cove, Kerguelen Land.	Voy. H.M.S. 'Challenger.'
k. ♂? vix ad. sk.	Royal Sound, Kerguelen Land (*Rev. A. E. Eaton*).	Transit of Venus Exp.

l. ♀ ad. sk.	Ice Barrier, Feb. 14, 1874.	Voy. H.M.S. 'Challenger.'
m. Ad. sk.	Coast of Australia, lat. 40¾° S., 123½° E., June 19, 1847 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'

n. Skeleton.
o–q. Skulls.

4. Prion ariel.

Prion ariel, *Gould, Ann. & Mag. N. H.* xiii. p. 366 (1844) (descr. nulla); *id. Handb. Birds Austr.* ii. p. 473 (1865); *Bp. Compt. Rend.* xlii. p. 768 (1856); *Gigl. Faun. Vert. Oceano*, p. 45 (1870); *id. Viagg.* '*Magenta*,' p. 843; *Finsch, J. f. O.* 1870, p. 374; *Gray, Hand-l.* iii. p. 108 (1871); *Buller, Birds N. Zeal.* ed. 2, ii. p. 213 (1888).
Prion brevirostris, *Gould, P. Z. S.* 1855, p. 88, pl. 93; *Bp. Compt. Rend.* xlii. p. 768 (1856); *id. Consp. Av.* ii. p. 194 (1856).
Procellaria ariel, *Gray, Ibis*, 1862, p. 247; *Schl. Mus. P.-B.*, vi. Procell. p. 18 (1863).
Pseudoprion ariel, *Coues, Pr. Ac. Phil.* 1866, pp. 166, 172.
Pseudoprion brevirostris, *Coues, Pr. Ac. Phil.* 1866, pp. 167, 172.
Pachyptila ariel, *Cab. & Reichenow, J. f. Orn.* 1876, p. 328.

Adult. Similar in colour to the other species of *Prion* but with a paler crown, hardly differing from the tint of the back; the spot below the eye also paler and less conspicuous; the terminal dark band of the tail wider: the bill much narrower and more compressed, though the unguis is as large as those of the other species; the sides of the mandible are nearly straight, and the lamellæ feebly developed and quite invisible when the bill is closed.

Hab. Madeira (perhaps accidental), and the Southern Seas generally, between lat. 35° and 60° S.

a. Ad. sk.	Madeira.	Gould Coll. (Type of *P. brevirostris*, Gould.)
b. Ad. st.	Cape of Good Hope.	Sir Andrew Smith [P.].
c. Ad. sk.	Christmas Harbour, Kerguelen Land, July 1840.	Antarctic Exped.
d. ♂ ad. st.	Southern Indian Ocean, lat. 40¾° S., long. 123½° E.	
e. Ad. sk.	Bass's Strait, April 16, 1839.	J. Gould. (One of the types of *P. ariel*.)
f. Ad. sk.	Australia.	Purchased.
g, h. Ad. sk.	New Zealand.	Salvin-Godman Coll.
i. Ad. sk.	New Zealand.	Colonial Museum.
j. Ad. sk.	Pott's Island, New Zealand, Dec. 1871.	Colonial Museum.
k. Ad. sk.	Dunedin, New Zealand (*F. W. Hutton*).	Hume Coll.
l. Ad. st.	Cook's Strait, New Zealand.	Dr. Lyall [P.].
m. Ad. sk.	New Zealand.	Sir Samuel Scott [P.].
n. Ad. sk.	Chatham Is., Dec. 1872.	Salvin-Godman Coll.
o. Ad. sk.	W. coast of S. America.	Salvin-Godman Coll.

Family III. PELECANOIDIDÆ.

1. PELECANOIDES.

Type.

Pelecanoides, *Lacépède, Mém. l'Inst.* iii. p. 513 (1801); *Coues, Pr. Ac. Phil.* 1886, p. 188; *Forbes, Voy. Chall. Zool.* iv. pt. xi. p. 42 &c. (1882); *Shufeldt, Pr. U.S. Nat. Mus.* x. p. 380 (1887) ..... P. urinatrix.

Haladroma, *Illig. Prodr.* p. 273 (1811); *Bp. Consp. Av.* ii. p. 206 (1856) ..... P. urinatrix.

Puffinuria, *Less. Voy.* '*Coquille*,' i. p. 729, pl. 46 (1826); *id. Traité d'Orn.* p. 614 (1831) ..... P. urinatrix.

Range. Southern Oceans.

Key to the Species.

a. Smaller (wing about 4·7 in.).
  a'. Throat, flanks, and under wing-coverts nearly pure white ..... *urinatrix*, p. 437.
  b'. Throat, flanks, and under wing-coverts more or less banded with grey ..... *exsul*, p. 438.
b. Larger (wing about 5·7 in.) ..... *garnoti*, p. 439.

1. Pelecanoides urinatrix.

Diving Petrel, *Forster, Voy.* i. p. 189; *Lath. Gen. Syn.* iii. pt. 2, p. 413 (1785); *id. Gen. Hist. Birds*, x. p. 194 (1824).

Procellaria urinatrix, *Gm. Syst. Nat.* i. p. 560 (1788); *Lath. Ind. Orn.* ii. p. 827 (1790); *Vieill. N. Dict. d'Hist. Nat.* xxv. p. 420 (1817); *id. Enc. Méth.* p. 76 (1823); *id. Gal. Ois.* ii. p. 231 (1825); *Kuhl, Beitr.* p. 145 (1820).

Pelecanoides urinatrix, *Lacép. Mém. l'Inst.* iii. p. 517 (1801); *Gray, List Anseres Brit. Mus.* p. 158 (1844); *id. Gen. Birds*, iii. p. 646 (1844); *id. Voy.* '*Ereb. & Terr.*' i. *Birds*, p. 17 (1846); *id. Ibis*, 1862, p. 243; *id. Hand-l.* iii. p. 102 (1871); *Jerd. Birds Ind.* iii. p. 827 (1864); *Coues, Pr. Ac. Phil.* 1866, p. 190; *Hutton, Ibis*, 1869, p. 352, 1874, p. 41; *Buller, Birds N. Zeal.* p. 313 (1873); *id. op. cit.* ed. 2, ii. p. 207 (1888); *id. Ibis*, 1874, p. 119; *Hume, Stray F.* viii. p. 115 (1879); *Sharpe, P. Z. S.* 1881, p. 12; *Oates, Handb. Birds Burma*, ii. p. 440 (1883); *Coppinger, Cruise* '*Alert*,' p. 106 (1883); *H. O. Forbes, Ibis*, 1893, p. 541.

Haladroma urinatrix, *Illig. Prodr.* p. 274 (1811); *Steph. in Shaw's Gen. Zool.* xiii. p. 257 (1826); *Reich. Av. Syst. Nat., Natatores*, pl. 14. figs. 762–3 (1850); *Bp. Compt. Rend.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 206 (1856); *Schl. Mus. P.-B.*, vi. Procell. p. 37 (1863); *Gould, Handb. Birds Austr.* ii. p. 483 (1865); *Hutton, Cat. Birds N. Zeal.* p. 44 (1871); *id. Ibis*, 1872, p. 248; *Finsch, J. f. Orn.* 1870, p. 370; *id. op. cit.* 1874, p. 210; *id. Ibis*, 1888, p. 309; *Sandager, Trans. N. Z. Inst.* xxii. p. 289 (1889).

Procellarine bérard, *Quoy & Gaimard, Voy. Uranie, Zool.* p. 135 (1824).

Haladroma berardi, *Temm. Pl. Col.* 517 (1831); *Schinz, Naturg. Vög.* p. 401, pl. 136 (1832); *Reich. Av. Syst. Nat., Natatores*, pl. 14. fig. 764 (1850); *Bp. Compt. Rend.* xlii. p. 769 (1856); *id. Consp. Av.* ii. p. 206 (1856); *Schl. Mus. P.-B.*, vi. Procell. p. 38 (1863); *Hutton, Ibis*, 1872, p. 248; *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Finsch, J. f. Orn.* 1874, p. 210.

Pelecanoides berardi, *Gould, Voy. 'Beagle,'* ii. *Birds*, p. 138 (1841); *id. P. Z. S.* 1859, p. 98; *Gray, List Anseres Brit. Mus.* p. 158 (1844); *id. Gen. Birds*, iii. p. 646 (1844); *id. Hand-l.* iii. p. 102 (1871); *Scl. P. Z. S.* 1860, p. 390; *Abbott, Ibis*, 1861, p. 164; *Coues, Pr. Ac. Phil.* 1866, p. 190; *Buller, Birds N. Zeal.* p. 314 (1873); *id. op. cit.* ed. 2, ii. p. 208 (1888); *H. O. Forbes, Ibis*, 1893, p. 542.

Procellaria tridactyla, *Forst. Descr. Anim.* p. 149 (1844); *Ellman, Zool.* 1861, p. 7473.

Puffinuria urinatrix, *Gould, Birds Austr.* vii. pl. 60 (1844); *Layard, Ibis*, 1867, p. 460.

Adult. Upper surface shining black, the inner scapulars grey on the inner webs and edged with white; under surface white, sides of the neck greyish; flanks nearly pure white; under wing-coverts white; axillaries dusky grey: bill black, tarsi black (skin). Total length about 8 inches, wing 4·7, tail 1·4, bill 0·9, tarsus 1, middle and outer toes 1·2, inner toe 1.

Hab. Australian and New Zealand Seas; also those of Cape Horn and the Falkland Islands.

a. Ad. sk.	Falkland Is. (*Falkland I. Co.*).	Salvin-Godman Coll.
b. ♂; *c*. ♀ ad. sk.	Falkland Is.	Salvin-Godman Coll.
d. Ad. sk.	Falkland Is.	Salvin-Godman Coll.
e. Ad. sk.	Falkland Is.	Sharpe Coll.
f, *g*. Ad. sk.	Straits of Magellan.	Antarctic Exped.
h. ♀ ad. sk.	Cockle Cove, Straits of Magellan, Oct. 16, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
i. ♀ ad. sk.	Woods Bay, Straits of Magellan, April 19, 1869 (*Dr. Cunningham*).	Salvin-Godman Coll.
j. ♀ ad. sk.	Antonio Is., Straits of Magellan, Feb. 17, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
k. ♂ ad.; *l*. ♀ ad. sk.	Cove Harbour, Messier Channel, Straits of Magellan.	Voy. H.M.S. 'Challenger.'
m. Juv. sk.	Stewart's I., New Zealand (*F. W. Hutton*).	Hume Coll.
n. Ad. sk.	New Zealand.	Sir G. Grey [P.].
o. Ad. sk.	New Zealand.	Salvin-Godman Coll.
p. Ad. sk.	Auckland Is.	Antarctic Exped.
q. Pull. st.	Auckland Is.	Antarctic Exped.
r. Juv. sk.	——?	Gould Coll.

(Type of *Haladroma tenuirostris*, Eyton.)

2. Pelecanoides exsul.

Pelecanoides urinatrix, *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 36 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 17 (1876); *Salv. P. Z. S.* 1878, p. 739; *id. Voy. 'Chall.,' Zool.* iii. pt. viii. p. 146 (1888); *Moseley, Notes Nat. 'Chall.'* pp. 129, 171, 208 (1879); *Sharpe, Phil. Trans.* clxviii. p. 114 (1879).

Halodroma urinatrix, *Cab. & Reich. J. f. Orn.* 1876, p. 328.

Adult. Similar to *P. urinatrix*, but the feathers of the sides and middle of the throat with a distinct subterminal grey bar; flanks mottled with grey, each feather with a grey shaft; under wing-coverts also grey, with white edges and dark shafts.

Sexes alike.

Hab. Southern Indian Ocean, from the Crozette Islands to Kerguelen Land.

a. Ad. sk.	Crozette Is.	Shelley Coll.
b. Ad. sk.	Crozette Is. (*E. L. Layard*).	H. Saunders, Esq. [P.].
c. Ad. sk.	At sea off Kerguelen Land, May 1840.	Antarctic Exped.
d. ♂; *e.* ♀ ad. sk.	Kerguelen Land.	Antarctic Exped.
f. Ad. sk.	Kerguelen Land.	Antarctic Exped.
g. Ad. sk.	Christmas Harbour, Kerguelen Land.	Antarctic Exped.
h. Ad. sk.	Christmas Harb., June 8, 1840.	Dr. R. McCormick [P.].
i, j. ♂ ad.; *k, l.* ♀ ad. sk.	Christmas Harbour.	Voy. H.M.S. 'Challenger.'
m. Pull. sk.	Christmas Harbour.	Voy. H.M.S. 'Challenger.'
n, o. ♂ ad. sk.	Betsy Cove, Kerguelen Land, Jan. 1874.	Voy. H.M.S. 'Challenger.'
p. ♂ ad.; *q.* ♀ ad. sk.	Observatory Bay, Kerguelen Land (*A. E. Eaton*).	Transit of Venus Exp.
r. Ad. sk.	New Zealand.	Colonial Museum.
s. Ad. st.	Anckland Is.	Lt. A. Smith [P.].
t, u. Skeletons.		
v. Sternum.		
w. Skull.		

3. Pelecanoides garnoti.

Puffinuria garnoti, *Less. Voy. Coquille*, i. pt. 2, p. 730, pl. 46 (1826); *id. Man. Orn.* ii. p. 394 (1828); *id. Traité d'Orn.* p. 730 (1831); *Peale, U.S. Expl. Exp.* viii. p. 338 (1848).

Pelecanoides garnoti, *Gould, Voy. 'Beagle,'* ii. *Birds*, p. 139 (1841); *Gray, List Anseres Brit. Mus.* p. 158 (1844); *id. Gen. Birds*, iii. p. 646 (1844); *id. Hand-l.* iii. p. 102 (1871); *Tsch. Arch. f. Naturg.* 1844, i. p. 315; *Coues, Pr. Ac. Phil.* 1866, p. 190; *Sharpe, Phil. Trans.* clxviii. p. 15 (1879); *Salv. Cat. Strickl. Coll.* p. 631 (1882); *id. P. Z. S.* 1878, p. 739; *id. op. cit.* 1883, p. 432; *id. Voy. 'Chall.', Zool.* ii. pt. viii. p. 146 (1881).

Halodroma garnoti, *Tsch. Faun. Pér., Orn.* p. 54 (1845); *Reich. Av. Syst. Nat., Natatores*, pl. 14. fig. 761 (1850); *Schl. Mus. P.-B.*, vi. Procell. p. 37 (1863); *Scl. P. Z. S.* 1867, p. 336; *Scl. & Salv. Nomencl. Av. Neotr.* p. 149 (1873); *Tacz. Orn. Pér.* iii. p. 465 (1886).

Adult. Similar to the preceding species but considerably larger: entire under surface pure white; flanks and axillaries dusky grey; inner surface of the tarsi, middle and inner toes yellowish hazel; outer side of the tarsus and outer toes darker. Total length about 9·5 inches, wing 5·7, tail 1·65, bill 1·2, tarsus 1·35, middle toe 1·4, outer toe a little shorter, inner toe 1·1.

Sexes alike.

Hab. West coast of South America, from Callao to Valparaiso.

a. Ad. sk.	Valparaiso.	Capt. Brett [P.].
b, c. Ad. st.	Coast of Chili.	T. Bridges [C.].
d. ♂ ad.; *e.* ♀ ad. sk.	Coquimbo Bay, Chili, Nov. 1881 (*Capt. A. H. Markham*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Callao, Peru, Sept. 14, 1871.	Salvin-Godman Coll.
g. Ad. sk.	Callao, Peru.	Salvin-Godman Coll.
h. Ad. sk.	[W. coast of S. America.]	Salvin-Godman Coll.
i. Ad. sk.	[W. coast of S. America.]	Purchased.

Family IV. DIOMEDEIDÆ.

Key to the Genera.

a. Sides of the mandible without longitudinal sulcus; tail short, rounded.
  a'. Base of the culminicorn wide, joining the proximal end of the dorsal edge of the latericorn ..... 1. DIOMEDEA, p. 440.
  b'. Base of the culminicorn narrower, divided by membrane from the latericorn ..... 2. THALASSOGERON, [p. 449.
b. Sides of the mandible with a deep longitudinal sulcus; tail long, cuneate ..... 3. PHŒBETRIA, p. 453.

1. DIOMEDEA.

	Type.
Diomedea, *Linn. Syst. Nat.* i. p. 214 (1766); *Bp. Consp. Av.* ii. p. 184 (1855); *Coues, Pr. Ac. Phil.* 1866, p. 175; *Forbes, Voy. 'Chall.', Zool.* iv. pt. xi. p. 42 &c. (1882)	D. exulans.
Phœbastria, *Reich. Syst. Av.* p. v (1852).....	D. albatrus.
Thalassarche, *Reich. Syst. Av.* p. v (1852)	D. melanophrys.

Range. Southern Ocean and North Pacific Ocean.

Key to the Species.

a. Larger: bill very strong; interscapular region and middle of the back white.
  a'. Head white.
    a''. Upper back with narrow transverse dark lines; wing-coverts dark slaty-black, the smaller coverts becoming nearly white towards the edge of the wing; exposed portion of the primaries beneath black. Young brown, the face white ..... *exulans*, p. 441.
    b''. Upper back without transverse dark lines; longer scapulars very irregularly marked with dark grey; wing-coverts dark grey, irregularly mottled towards the edge with white; exposed portion of primaries beneath black. Young white, from the downy nestling ..... *regia*, p. 443.
    c''. Upper back without transverse dark bands, the scapulars alone faintly banded; wing-coverts nearly white, the middle coverts only variegated with black; exposed portion of the primaries beneath with a large white patch on the inner web .... *chionoptera*, p. 443.
  b'. Head buff ..... *albatrus*, p. 444.
b. Smaller; bill more slender.
  c'. Interscapular region and middle of the back sooty-black or brown.
    d''. Abdomen dark, closely freckled with white..... *irrorata*, p. 445.
    e''. Abdomen sooty-brown..... *nigripes*, p. 445.
    f''. Abdomen white ..... *immutabilis*, p. 446.

d'. Interscapular region and middle of the back slaty-black.

g''. Bill yellowish horn-colour ..... *melanophrys*, p. 447.

h''. Bill, culmen, and lower edge of the mandible yellowish horn-colour; sides of the bill slaty ..... *bulleri*, p. 448.

1. Diomedea exulans.

The Man of War Bird, *Albin, Birds*, iii. p. 76, pl. 81 (1740); *Edw. Nat. Hist. Birds*, ii. p. 88, pl. 88 (1747).

Brown or Chocolate Albatros, *Cook, Itin.* pp. 116, 150; *Forst. Itin.* i. p. 258.

L'Albatros, *Briss. Orn.* vi. p. 126 (1760); *Buff. Hist. Nat. Ois.* x. p. 173 (1786).

L'Albatros du Cap de Bonne Espérance, *D'Aub. Pl. Enl.* 237.

Wandering Albatros, *Penn. Arctic Zool.* ii. p. 506 (1785); *Lath. Gen. Syn.* iii. pt. i. p. 304 (1785); *id. Gen. Hist. Birds*, x. p. 48 (1824).

Chocolate Albatros, *Lath. Gen. Syn.* iii. pt. i. p. 308 (1785); *id. Gen. Hist. Birds*, x. p. 52 (1824).

Diomedea exulans, *Linn. Syst. Nat.* i. p. 214 (1766); *Gm. Syst. Nat.* i. p. 566; *Lath. Ind. Orn.* ii. p. 789; *Vieill. N. Dict. d'Hist. Nat.* i. p. 287 (1816); *id. Gal. Ois.* ii. p. 234, pl. 293 (1825); *Steph. in Shaw's Gen. Zool.* xiii. p. 259, pl. 30 (1826); *Schinz, Naturg. Vög.* p. 394, pl. 135 (1832); *F. D. Bennett, P. Z. S.* 1833, p. 78; *G. Bennett, P. Z. S.* 1834, p. 151; *Nutt. Man. Water-Birds*, p. 340 (1834); *Vigors, Voy. 'Blossom,' Zool.* p. 39 (1839); *Gray, List Anseres Brit. Mus.* p. 166 (1844); *id. Gen. Birds*, iii. p. 650 (1844); *id. Voy. 'Ereb. & Terr.'* i. *Birds*, p. 18 (1846); *id. Birds Trop. Is. Pac.* p. 57 (1859); *id. Ibis*, 1862, p. 247; *id. Hand-l.* iii. p. 109 (1871); *Gould, Birds Austr.* vii. pl. 38 (1844); *id. Handb. Birds Austr.* ii. p. 427 (1865); *Sundev. Svensk. Fogl.* pl. lxxxi. fig. 2; *Peale, U.S. Expl. Exp.* viii. p. 337 (1848); *Reich. Syst. Av., Natatores*, pl. 27. fig. 2616, pl. 29. figs. 801, 802 (1850); *Kjærb. Orn. Dan. Suppl.* pl. 71. fig. 3 (1851); *Brehm, Naum.* 1855, p. 295; *id. Vogelf.* p. 355; *Hartl. Orn. W.-Afr.* p. 251 (1856); *Bp. Consp. Av.* ii. p. 184 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Grill, Zool. Anteckn.* pp. 12, 57 (1858); *Blasius & Bald. Naum. Vög. Deutschl.* xiii. pt. 2, p. 278 (1860); *Lawr. Birds N. Am.* p. 821 (1860); *Bree, Birds Eur.* iv. p. 115, pl. — (1863); *Layard, Ibis*, 1862, p. 97, 1863, p. 248, 1867, p. 460; *id. Birds S. Afr.* p. 363 (1867); *Schl. Mus. P.-B.*, vi. Procell. p. 31 (1863); *Hutton, Ibis*, 1865, p. 278, 1867, p. 185, 1872, p. 248; *id. Cat. Birds N. Zeal.* p. 43 (1871); *Saunders, Ibis*, 1866, p. 124; *id. P. Z. S.* 1880, p. 165; *Coues, Pr. Ac. Phil.* 1866, pp. 175, 187; *id. Auk*, ii. p. 387 (1885); *Degl. & Gerbe, Orn. Eur.* ii. p. 366 (1867); *Scl. & Salv. Ibis*, 1869, p. 284; *id. Nomencl. Av. Neotr.* p. 148 (1873); *Pelz. Reise Novara, Zool.* i. *Vög.* p. 147 (1869); *Gigl. Faun. Vert. Oceano*, p. 49 (1870); *id. Viagg. 'Magenta'* (see index) (1875); *Sperling, Ibis*, 1872, p. 75; *Gurney, in Anderss. Birds Damara-L.* p. 355 (1872); *Pelz. Ibis*, 1873, pp. 51, 123; *Buller, Birds N. Zeal.* p. 289 (1873); *id. op. cit.* ed. 2, ii. p. 189 (1888) (partim); *id. Trans. N. Zeal. Inst.* xxiv. p. 69 (1892); *id. op. cit.* xxv. p. 76 (1893); *id. op. cit.* xxvii. p. 121 (1895); *Finsch, J. f. Orn.* 1870, p. 375, 1874, p. 206; *Salv. in Rowley's Orn. Misc.* i. p. 237 (1876); *id. Cat. Strickl. Coll.* p. 632 (1882); *Moseley, Notes Nat. Chall.* pp. 134, 171, 180, 183, 254 (1879); *Sharpe, Phil. Trans.* clxviii. p. 45 (1879) (partim); *id. in Layard's Birds S. Afr.* p. 770 (1884); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 238 (1881); *id. Man. N. Amer. Birds*, p. 51 (1887); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 347 (1884);

Hamilton, Tr. N. Zeal. Inst. xviii. p. 128 (1886); *Lucas, Auk*, iv. p. 1 (1887); *Chapm. Auk*, iv. p. 394 (1887); *Tacz. Orn. Pér.* iii. p. 461 (1886); *Reischek, Trans. N. Zeal. Inst.* xxi. p. 126 (1889); *Sanford, Zool.* 1889, p. 288; *Cheeseman, Tr. N. Zeal. Inst.* xxiii. p. 224 (1891); *H. O. Forbes, Ibis*, 1893, p. 541; *G. E. Verrill, Trans. Connect. Ac.* ix. p. 437 (1895).

Diomedea spadacea, *Gm. Syst. Nat.* i. p. 568 (1788); *Lath. Ind. Orn.* ii. p. 790 (1790); *Vieill. N. Dict. d'Hist. Nat.* ii. p. 287 (1816); *Steph. in Shaw's Gen. Zool.* xiii. p. 261 (1826); *Less. Man. d'Orn.* ii. p. 351 (1828); *Gray, Gen. Birds*, iii. p. 650 (1844).

Diomedea exhulans, *Less. Man. d'Orn.* ii. p. 350 (1828).

Diomedea epomophera, *Less. Man. d'Orn.* ii. p. 351 (1828); *Bp. Consp.* ii. p. 185 (1855).

Diomedea albatros, *Forst. Descr. Anim.* p. 27 (1844) (*nec Pall.*).

Diomedea adusta, *Tsch. J. f. Orn.* 1856, p. 157; *Bp. Consp. Av.* ii. p. 185 (1855).

Adult male. White, back from the base of the neck banded with narrow transverse undulating dark lines (usually four lines on the terminal fifth of each feather); scapulars more strongly banded, the bands becoming broken up, and their general direction more parallel with the margin of the feather, the tips of the longest feathers slaty-black; wings slaty-black, the lesser wing-coverts more or less white on the inner webs, the white increasing towards the edge of the wing; middle and greater coverts narrowly edged with white, the former towards the proximal end of the ulna becoming nearly white with a few transverse dark lines; primaries black, the concealed portion of the shafts yellowish white; under wing-coverts and axillaries white, the concealed portion of the primaries also white, the exposed portion black with light-coloured shafts; tail white, a few irregular dark marks on both webs near the tip: bill yellowish horn-colour, the base of the culmen and the mandible orange; legs and feet flesh-colour. Total length about 42 inches, wing (from carpal joint to the tip of the longest primary) 25·5, tail 8·3, bill from gape 7, from base of culmen 6·7, tarsus 4·8, middle and outer toes 6·5, inner toe 5·8. (*f.* ♂, New Zealand, *Hutton*; April 1875.)

Young. Above dark brown, paler on the neck, with a dark patch on the crown and nape; wings uniform darker brown; forehead, sides of the head, and upper portion of the throat white; under surface whitish, paler on the abdomen; the flanks speckled; the under tail-coverts brown; under wing-coverts and axillaries white. (*g.* New Zealand.)

Hab. Southern Ocean, Cape Seas, South Atlantic and South Pacific Oceans to New Zealand.

a. Imm. sk.	South Indian Ocean, lat. 39° 40′ S., long. 32° 19′ E., Oct. 12.	Earl of Crawford and Balcarres [P.].
b. Ad. st.	Southern Ocean.	F. C. Sturgeon, Esq. [P.].
c. Imm. sk.	S. Australia.	Sir G. Grey [P.].
d. Imm. sk.	N.W. Australia.	Capt. Beckett [C.].
e. Imm. sk.	N. S. Wales.	Australian Mus.
f. ♂ ad. sk.	New Zealand, April (*F. W. Hutton*).	Hume Coll.
g. Imm. sk.	New Zealand.	New Zealand Co.
h. Vix ad. sk.	South Atlantic Ocean, lat. 34° S., long. 4° 29′ E., Sept. 16.	Earl of Crawford and Balcarres [P.].

i. Imm. sk.	Cape Seas.	E. M. Langworthy, Esq. [P.].
j. Ad. st.	Cape Seas.	Capt. R. T. Harry [P.].
k. Imm. st.	Cape Seas.	Old Collection.
l. ♂ juv. sk.	At sea, South Pacific Ocean, Nov. 11, 1875.	Voy. H.M.S. 'Challenger.'
m. Ad. sk.	Valparaiso.	Capt. Brett [P.].
n. Ad.; *o.* Imm. sk.	[South Seas.]	Old Collection.
p. Skeleton.		
q–s. Skeletons.		
t–v. Skulls.		

2. Diomedea regia.

Diomedea exulans, *Buller, Birds N. Zeal.* ed. 2, ii. p. 189 (partim); *id. Tr. N. Zeal. Inst.* xxii. p. 340 (1890); *Reischek, Tr. N. Zeal. Inst.* xxi. p. 126 (1889).

Diomedea regia, *Buller, Trans. N. Zeal. Inst.* xxiii. p. 230 (1891); *id. op. cit.* xxiv. p. 68 (1892); *id. op. cit.* xxv. p. 76 (1893); *id. op. cit.* xxvii. p. 120 (1895).

Adult. Similar to *D. exulans*, but with the upper back destitute of fine transverse dark lines, the scapulars alone being mottled irregularly with dark grey; lesser wing-coverts mottled with grey; tail pure white, without subterminal marks; primaries dark beneath, without white on the inner webs on the exposed portion. Total length about 48 inches, wing 25·5, tail 8·2, bill from gape 6·8, from culmen 6·6, tarsus 4·8, middle and outer toes 6·1, inner toe 5·5.

Young described as white, from the downy nestling.

Hab. New Zealand Seas.

a, b. Ad. sk.	Enderby I., Auckland Is., Nov. 30, 1840.	Dr. R. McCormick [P.].
c. Ad. sk.	New Zealand, April 24, 1894.	— Sutcliffe, Esq. [P.].

3. Diomedea chionoptera.

Diomedea exulans, *Reich. Syst. Av., Natatores*, pl. 26. fig. 344?; *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 19 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 11 (1876); *Cab. & Reich. J. f. Orn.* 1876, p. 328; *Salv. P. Z. S.* 1878, p. 740; *id. Voy. 'Chall.', Zool.* ii. pt. viii. p. 147 (1881).

Adult male. Similar to *D. exulans*, but like *D. regia* destitute of fine transverse lines on the upper surface, the scapulars even being almost pure white; lesser wing-coverts along the edge of the wing and the proximal middle coverts nearly pure white, the upper surface of the wing being much whiter than in either of the allied forms; primaries beneath with the white of the base extending on the inner web far beyond the margin of the concealed portion. Total length about 48 inches, wing from carpal joint 25·5, tail 8·3, bill from gape 7·3, from base of culmen 6·6, tarsus 5, middle and outer toes 6·7, inner toe 6. (Kerguelen Land, Jan. 1874.)

Hab. Southern Indian Ocean.

a. Vix ad. sk.	South Atlantic Ocean, lat. 34° S., long. 4° 29′ E.	Earl of Crawford and Balcarres [P.].
b. Ad. sk.	Marion I., Dec. 1873.	Voy. H.M.S. 'Challenger.'
c. ♂ ad. sk.	Kerguelen Land.	Antarctic Exped.
d. ♂ ad. sk.	Kerguelen Land, Jan. 1874.	Voy. H.M.S. 'Challenger.'

4. Diomedea albatrus.

Tohaiki, *Steller, Hist. Camtsch.* p. 154 (1774).
Albatros de la Chine, *D'Aub. Pl. Enl.* 963.
Diomedea albatrus, *Pall. Spic. Zool.* v. p. 28 (1780); *id. Zoogr. Ross.-As.* ii. p. 308 (1811); *Swinh. P. Z. S.* 1871, p. 422; *David. & Oust. Ois. Chine,* p. 516 (1877); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 351 (1884); *Turner, Auk,* ii. p. 158 (1885); *id. Contr. Nat. Hist. Alaska,* p. 128 (1886); *A. O. U. Check-l. N. Am. Birds,* p. 97 (1886); *Stejn. Bull. U.S. Nat. Mus.* no. 29, pp. 89, 316 (1885); *id. Pr. U.S. Nat. Mus.* x. p. 125 (1887); *Everm. Auk,* iii. p. 89 (1886); *Blakiston, Pr. U.S. Nat. Mus.* ix. p. 655 (1887); *Ridgw. Man. N. Am. Birds,* p. 51 (1887); *id. Pr. U.S. Nat. Mus.* xvi. p. 663 (1893); *Towns. Pr. U.S. Nat. Mus.* xiii. p. 142 (1890); *Seeb. Ibis,* 1890, p. 205; *id. Birds Jap. Emp.* p. 261 (1890); *Tacz. Mém. Ac. Imp. St. Pétersb.* xxxix. p. 1068 (1893); *Loomis, Pr. Cal. Ac. Sc.* ser. 2, xxiv. p. 216 (1895).
Diomedea chinensis, *Temm. Man. d'Orn.* i. p. cx, ex *D'Aub. Pl. Enl.* 963 (1820).
Diomedea spadacea, var. *β*, *Lath. Gen. Hist. B.* x. p. 52 (1824).
Diomedea brachyura, *Temm. Pl. Col.* livr. 79 (1829), et *Pl. Col.* 554 (livr. 94, 1835); *Peale, U.S. Expl. Exp.* viii. pp. 290, 337 (1848); *Gould, Birds Austr.* vii. pl. 39 (1848); *id. Handb. Birds Austr.* ii. p. 433 (1865); *Cassin, Birds Calif. & Texas,* p. 289, pl. 50 (1862); *Reich. Syst. Av., Natatores,* pl. 26. fig. 345 (1850); *Temm. & Schl. Faun. Jap.* p. 132, pl. 87 (1850); *Lawr. Birds N. Am.* p. 822 (1860); *Schl. Mus. P.-B.,* vi. Procell. p. 32 (1863); *Swinh. P. Z. S.* 1863, p. 329, 1871, p. 422; *Gigl. Faun. Vert. Oceano,* p. 56 (1870); *id. Viagg. 'Magenta,'* pp. 108, 536, 655, 716 (1875); *Coues, Key N. Am. Birds,* p. 325 (1872); *id. op. cit.* ed. 2, p. 775 (1884); *id. Orn. Prybilov Is.* (1874); *id. Check-l. N. Am. Birds,* p. 125 (1882); *Bean, Pr. U.S. Nat. Mus.* v. pp. 170, 173 (1882); *H. W. Elliott, Seal-Islands of Alaska,* p. 131 (1882); *Nelson, Cruise 'Corwin,'* p. 111 (1883).
Diomedea derogata, *Swinh. P. Z. S.* 1873, p. 786; *id. Ibis,* 1874, p. 165, 1875, p. 140; *David & Oust. Ois. Chine,* p. 516 (1877); *Blakist. & Pryer, Trans. As. Soc. Jap.* x. p. 106 (1882); *Blakist. Amended List Birds Jap.* pp. 21, 35 (1884); *id. Pr. U.S. Nat. Mus.* ix. p. 655 (1886).

Adult male. White, top of the head, nape, and back of the neck strongly tinged with buff; longest scapulars, wings, and end of the tail greyish black, smaller wing-coverts variegated with white, and a large white patch over the vicinity of the distal end of the humerus; shafts of the primaries and of the tail yellowish white; under tail-coverts and axillaries pure white: bill yellowish horn-colour; legs and feet dark (in life bluish-white ?). Total length about 37 inches, wing 22, tail 6·3, bill from gape 6·2, tarsus 3·9, middle toe 5·5, outer toe 5·4, inner toe 4·7.

Young. Wholly sooty-brown, including the under surface of the wings, chin rather paler.

Hab. North Pacific Ocean.

a. ♂ ad.; *b*. ♀ ad. sk.	Amoy, China, April 1866 (*R. Swinhoe*).	Seebohm Coll.
c. ♂ ad.; *d*. Juv. sk.	Chefoo, China, June 18, 1873 (*R. Swinhoe*).	Seebohm Coll. (Types of *D. derogata*, Swinhoe.)

e. ♂ ad.; *f*. ♂ juv. sk.	Hakodaté, Japan, April, July 1883 (*Blakiston*).	Seebohm Coll.
g. ♂ juv. sk.	Hakodaté, July (*Blakiston*).	Seebohm Coll.
h, *i*. Ad.; *j*, *k*. Imm. sk.	Liu Kiu Islands.	Purchased.
l. Imm. sk.	Nagasaki, Japan.	F. Ringer, Esq. [P.].
m. Ad. sk.	Hamilton Is.	A. G. Wilday, Esq. [P.].

n, *o*. Skeletons.

5. Diomedea irrorata. (Plate VIII.)

Diomedea irrorata, *Salv. P. Z. S.* 1883, p. 430; *Tacz. Orn. Pér.* iii. p. 461 (1886); *Ridgw. Man. N. Am. Birds*, p. 52 (1887).

Adult male. Head and neck white, the nape and the back of the latter slightly tinged with buff; back, wings, and tail greyish sooty brown; the base of the neck, interscapular region, rump, and upper tail-coverts freely mottled and banded with white; whole abdomen and breast, under wing-coverts, axillaries, and under tail-coverts sooty-brown, freely mottled and freckled with white: bill yellowish, the tip of the mandible horn-colour; feet dark. Total length about 35 inches, wing 21, tail 5·5, bill 6·2, tarsus 3·8, middle toe 5·1, outer toe 5, inner toe 4·4.

Hab. West coast of Peru.

a. ♂ ad. sk.	Callao Bay, Coast of Peru, Dec. 1881 (*Capt. A. H. Markham*).	Salvin-Godman Coll. (Type of the species.)

6. Diomedea nigripes.

Diomedea nigripes, *Aud. Orn. Biogr.* v. p. 327 (1839); *id. Birds Am.* 8vo ed. vii. p. 198 (1844); *Gray, Gen. Birds*, iii. p. 650 (1844); *Cassin, Birds Calif. & Texas*, p. 210, pl. 39 (1862); *Schl. Mus. P.-B.*, vi. Procell. p. 33 (1863); *D. Walker, P. Z. S.* 1863, p. 380; *Swinh. P. Z. S.* 1863, p. 329, 1871, p. 422; *Dall & Bann. Trans. Chic. Ac.* i. p. 302 (1869); *Gigl. Faun. Vert. Oceano*, p. 57 (1870); *id. Viagg. 'Magenta,'* pp. 331, 332 (1875); *Dall, Notes Avif. Aleut Is.* p. 8 (1874); *David & Oust. Ois. Chine*, p. 517 (1877); *Coues, Key N. Am. Birds*, p. 325 (1872); *id. op. cit.* ed. 2, p. 775 (1884); *id. Check-l. N. Am. Birds*, 1882, p. 125; *Bean, Pr. U.S. Nat. Mus.* v. pp. 169, 173 (1882); *Nelson, Cruise 'Corwin,'* p. 111 (1883); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 355 (1884); *Blakist. Amended List Birds Jap.* pp. 21, 35 (1884); *id. Pr. U.S. Nat. Mus.* ix. p. 656 (1886); *Seeb. Ibis*, 1884, p. 176, 1885, p. 363, 1891, p. 191; *id. Birds Jap. Emp.* p. 263 (1890); *Stejn. Bull. U.S. Nat. Mus.* no. 29, p. 91 (1885); *Turner, Contr. Nat. Hist. Alaska*, ii. p. 129 (1886); *A. O. U. Check-l. N. Am. Birds*, p. 97 (1886); *Ridgw. Man. N. Am. Birds*, p. 51 (1887); *Towns. Pr. U.S. Nat. Mus.* xiii. p. 142 (1890); *Loomis, Pr. Cal. Ac. Sc.* ser. 2, v. p. 215 (1895).

Diomedea brachyura, *Gray, Gen. Birds*, iii. p. 650 (1844) (*nec Temm.*); *Jacq. & Puch. Voy. Pôle Sud*, iii. p. 139 (1853); *Bp. Consp. Av.* ii. p. 184 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Dall, Trans. Chic. Ac. Sc.* i. p. 302 (1869); *id. Notes Avif. Aleut. Is.* p. 8 (1874); *Salv. P. Z. S.* 1878, p. 740; *id. op. cit.* 1883, p. 430; *id. Voy. Chall., Zool.* ii. pt. viii. p. 147 (1881); *Finsch, Ibis*, 1880, p. 76; *Blakist. & Pryer, Trans. As. Soc. Jap.* x. p. 106 (1882); *Bean, Pr. U.S.*

Nat. Mus. v. pp. 170, 173 (1882); *Blakist. Amended List Birds Jap.* pp. 10, 35 (1884); *Shufeldt, Auk*, ii. p. 175 (1889).
Diomedea chinensis (*nec Temm.*), *Rothsch. Avif. of Laysan, &c.* p. 55, pls. (1893).

Adult. Sooty-brown, darker on the nape, back of the neck, wings, and tail; a large triangular spot behind and below the eye, and the feathers surrounding the base of the bill dirty-white; front part of the crown, sides of the head, neck, and abdomen paler sooty-brown; breast and flanks rather darker, lower abdomen white at the base of the feathers; tail white at the base; under wing-coverts and axillaries sooty-brown: bill dark reddish brown; legs and feet black. Total length about 28 inches, wing 18, tail 5·5, bill from gape 4·6, tarsus 4·4, middle toe 4·3, outer toe 4·2, inner toe 3·8.

Young? Similar to the adult, but with the crown and sides of the head whiter, rump and upper tail-coverts white, or sooty-brown mixed with white feathers.

Hab. North Pacific Ocean.

The specimens with white rump and upper tail-coverts have usually been considered adult, but the specimens before me show that they must be considered young. Some examples are in full moult, and new dark feathers are appearing amongst the old and pale ones.

Much confusion has arisen between this species and *D. albatrus*, two very distinct birds, partly owing to the similarity between the young of *D. albatrus* and the adult of *D. nigripes*. D'Aubenton's Planche Enluminé, no. 963, upon which Temminck founded his *D. chinensis*, and afterwards referred it to the young of his *D. brachyura*, certainly represents the young of *D. albatrus*, of which *D. brachyura* is a synonym.

a. Juv.? sk.	At sea, N. Pacific Ocean, lat. 33° N., long. 119° W. (*Capt. A. H. Markham*).	Salvin-Godman Coll.
b. Ad. sk.	N. Pacific Ocean.	
c. ♂ ad.; *d*. ♀ ad.; *e*, *f*. ♂ juv.; *g*. ♀ juv.? sk.	At sea, N. Pacific Ocean, April, June, July.	Voy. H.M.S. 'Challenger.'
h. Juv.? sk.	[N. Pacific Ocean.]	Purchased.
i. Ad. sk.	Hakodaté, Japan (*Henson*).	Seebohm Coll.
j. ♀ ad. sk.	Amoy, China, April 1861 (*R. Swinhoe*).	Seebohm Coll.
k. Skeleton.		
l, *m*. Skulls.		

7. Diomedea immutabilis.

Diomedea exulans?, *Kittl. Mus. Senckenb.* i. p. 120 (1834).
? Diomedea melanophrys, *Bean, Pr. U.S. Nat. Mus.* v. pp. 170, 173 (1882).
Diomedea immutabilis, *Rothsch. Bull. Brit. Orn. Club*, i. p. xlviii (June 1893); *id. Ibis*, 1893, p. 448; *id. op. cit.* 1894, p. 548; *id. Avif. of Laysan, &c.* p. 57, pls. (1893).

Adult. Head, neck, rump, upper tail-coverts, and whole under surface white, lores next the eye sooty-black; back, wings, and end of the tail dark sooty-brown, interscapular region paler, base of the

tail whitish; under wing-coverts blackish brown and white, irregularly mingled. "Bill grey, darker at the base, tip blackish brown, base of the mandible pale yellow; iris brown; legs and feet fleshy-pink (*H. Palmer*)." Total length about 32 inches, wing 18·5, tail 5·8, bill from gape 4·6, tarsus 3·3, middle toe 4, outer toe 3·9, inner toe 3·5. (*Mus. Rothschild.*)

Young. Similar to the adult.

Nestling. Covered with brown down.

Hab. Laysan and some of the neighbouring islands.

a. Ad. sk. Laysan Island (*Palmer*). Hon. W. Rothschild [P.]. (A typical specimen.)

8. Diomedea melanophrys.

Diomedea melanophrys, *Boie in Temm. Pl. Col.* 456 (1828); *Schinz, Naturg. Vög.* p. 395, pl. 135 (1832); *Gray, List Anseres Brit. Mus.* p. 166 (1844); *id. Gen. Birds*, iii. p. 650 (1844); *id. Hand-l.* iii. p. 109 (1871); *Gould, Birds Austr.* vii. pl. 43 (1844); *id. Handb. Birds Austr.* ii. p. 438 (1865); *Reich. Av. Syst. Nat., Natatores*, pl. 26. fig. 346, pl. 28. figs. 797–8 (1850); *Bp. Consp. Av.* ii. p. 185 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Grill, Zool. Anteckn.* pp. 11, 57 (1858); *Abbott, Ibis*, 1861, p. 165; *Layard, Ibis*, 1862, p. 97, 1865, pp. 245, 247, 1876, p. 393; *id. Birds S. Afr.* p. 364 (1867); *Schl. Mus. P.-B.*, vi. Procell. p. 33 (1863); *Hutton, Ibis*, 1865, p. 283, 1867, p. 185, 1872, p. 248, 1874, p. 41; *Coues, Pr. Ac. Phil.* 1866, pp. 181, 188; *Pelz. Reise Novara, Zool.* i. *Vög.* p. 148 (1869); *Newton, Ibis*, 1870, p. 503; *Finsch, J. f. Orn.* 1870, p. 375; *id. op. cit.* 1874, p. 206; *Hutton, Cat. Birds N. Zeal.* p. 44 (1871); *Gurney in Anderss. Birds Damara-L.* p. 356 (1872); *Sperling, Ibis*, 1872, p. 75; *Buller, Ibis*, 1874, p. 119; *id. Birds N. Zeal.* p. 292 (1873); *id.* ed. 2, ii. p. 198 (1888); *id. Tr. N. Zeal. Inst.* xxvii. p. 121 (1895); *Scl. & Salv. Nomencl. Av. Neotr.* p. 148 (1873); *Salv. P. Z. S.* 1878, p. 740; *id. op. cit.* 1883, p. 430; *id. Voy. 'Chall.', Zool.* ii. pt. viii. p. 148 (1881); *id. Cat. Strickl. Coll.* p. 632 (1882); *id. Ibis*, 1895, p. 273; *Sharpe, Phil. Trans.* clxviii. p. 146 (1879); *id. P. Z. S.* 1881, p. 12; *id. ed. Layard's Birds S. Afr.* p. 772 (1884); *Moseley, Notes Nat. 'Chall.'* p. 254 (1879); *Milne-Edw. & Grand. Hist. Madag., Ois.* p. 669 (1881); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 357 (1884); *Hamilton, Tr. N. Zeal. Inst.* p. 128 (1886); *Ridgw. Man. N. Am. Birds*, p. 52 (1887); *Lucas, Auk*, iv. p. 3 (1887); *Evans, Ibis*, 1891, p. 82; *Cheeseman, Tr. N. Zeal. Inst.* xxiii. p. 224 (1891); *Chapm. Auk*, v. p. 394 (1892); *H. O. Forbes, Ibis*, 1893, p. 541; *G. E. Verrill, Tr. Connect. Ac.* ix. p. 441 (1893); *Harvie-Brown, Zool.* 1894, p. 337; *Andersen, Vidensk. Medd. Nat. For. Kjöbenh.* 1894, p. 241.

Diomedea gilliana, *Coues, Proc. Ac. Phil.* 1866, pp. 181, 188; *Ridgw. Man. N. Am. Birds*, p. 52 (1887).

Thalassarche melanophrys, *Gigl. Faun. Vert. Oceano*, p. 57 (1870); *id. Viagg. 'Magenta'* (see index) (1875).

Adult. White, a short slaty-black band on either side of the eye; back and wings brownish black; the interscapular region cinereous, shading into white at the base of the neck; tail slate-grey, the shafts of the rectrices white; under wing-coverts white, with a wide greyish-black border along the edges of the wing: bill yellowish horn-colour, the tip darker; legs and feet yellow. Total

length about 30 inches, wing 20, tail 7·3, bill from gape 5·2, tarsus 3·3, middle toe 4·8, outer toe 4·6, inner toe 4·1.

Hab. Southern Ocean, straying to N. Atlantic.

I have very little doubt that *D. gilliana*, Coues, was founded on a young specimen of *D. melanophrys*, as already suggested by Mr. Ridgway.

a. ♂ ad.; *b*. ♀ ad. sk.	Christmas Harbour, Kerguelen Land.	Voy. H.M.S. 'Challenger.'
c. ♂ sk.	Entrance to Bass's Strait, July 11, 1847 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
d. Ad. sk.	South Seas.	Antarctic Exped.
e. Ad. st.	South Seas.	Old Collection.
f. Ad. sk.	[South Seas.]	Sir E. Belcher [P.].
g. Ad. st.	Coast of Australia.	
h. Ad. sk.	[South Seas.]	
i. Ad. sk.	[South Seas.]	Salvin-Godman Coll.
j. Ad. sk.	New Zealand.	Hume Coll.
k. ♂ ad. sk.	At sea, July 8, 1874.	Voy. H.M.S. 'Challenger.'
l, *m*. Ad. sk.	Valparaiso Bay.	H. Berkeley James, Esq. [P.].
n. ♀ ad.	Corral, Chili, Oct. 24, 1890.	H. Berkeley James Esq. [P.].
o. Ad. sk.	Tarapacá, Chili.	H. Berkeley James, Esq. [P.].
p. ♂ ad. sk.	Valparaiso. Aug. 13, 1879 (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
q. Ad. sk.	Talcahuano Bay, Chili (*Capt. A. H. Markham*).	Salvin-Godman Coll.
r. Skull.		
s. Trachea.		

9. Diomedea bulleri.

Diomedea culminata, *Buller, Birds N. Zeal.* p. 295 (1873); *id. op. cit.* ed. 2, ii. p. 201 (1888); *Finsch, J. f. Orn.* 1874, p. 206.
Diomedea bulleri, *Rothsch. Bull. Brit. Orn. Club*, i. p. lviii (1893); *id. Ibis*, 1893, p. 572; *Buller, Tr. N. Zeal. Inst.* xxvii. p. 121 (1895).

Adult male. Similar to *Thalassogeron culminata* so far as the colour of its plumage is concerned. The bill is paler, the culminicorn at the base wider, almost touching the upper edge of the latericorn, and with a well-defined posterior margin; whole of the culminicorn yellow; under wing-coverts pure white; legs and feet red. Total length about 34 inches, wing 20·8, tail 7·7, bill from gape 5·1, from base of culmen 4·7, tarsus 3·3, middle toe 4·7, outer toe 4·55, inner toe 4.

Hab. New Zealand Seas.

This species is somewhat intermediate between *Diomedea* and *Thalassogeron*, as the culminicorn does not expand at the base so much as in more typical *Diomedea*, but there is no intervening skin between it and the latericorn, as in *Thalassogeron*.

a. Ad. sk.	New Zealand.	Hon. W. Rothschild [P.]. (Typical specimens.)
b. Ad. sk.	Snares Is.	Hon. W. Rothschild [P.]. (Typical specimens.)

2. THALASSOGERON *.

Type.

Thalassogeron, *Ridgway in Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. pp. 345, 357 (1884) .... T. culminatus.
Thalassarche, *Forbes, Zool. Chall. Exp.* iv. pt. xi. p. 57 (1882) (*nec Reichenbach*).
Diomedea, *Reich. Syst. Av., Longip.* pl. iii. (1852).

Range. Southern Oceans.

Key to the Species.

a. Culmen in adult bright yellow, sides of the bill black.
  a'. Culminicorn rounded posteriorly; lower edge of the mandible yellow ..... *culminatus*, p. 451.
  b'. Culminicorn pointed posteriorly; base of the mandible yellow, but not the lower edge. *chlororhynchus*, p. 451.
b. Bill generally pale, the sides not black, and the culmen not distinctly yellow.
  c'. Whole head and neck nearly pure white.
    a''. Bill very stout; tarsi and toes longer.. *cautus*, p. 449.
    b''. Bill more slender; tarsi and toes shorter *layardi*, p. 450.
  d'. Whole head and neck (except the white crown) grey ..... *salvini*, p. 450.

1. Thalassogeron cautus.

Diomedea cauta, *Gould, P. Z. S.* 1840, p. 177; *id. Ann. & Mag. N. H.* xiii. p. 360 (1844); *id. Birds Austr.* vii. pl. 40 (1844); *id. Handb. Birds Austr.* ii. p. 434 (1865); *Gray, Gen. Birds*, iii. p. 650 (1844); *Reich. Av. Syst., Natatores*, pl. 29. figs. 799–800 (1850); *Bp. Consp. Av.* ii. p. 184 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Schl. Mus. P.-B.*, vi. Procell. p. 34 (1863); *Coues, Pr. Ac. Phil.* 1866, pp. 183, 188; *Cab. & Reichenow, J. f. Orn.* 1876, p. 328; *le Souëf, Ibis*, 1895, p. 413.
Thalassarche cauta, *Gigl. Faun. Vert. Oceano*, p. 58 (1870); *id. Viagg. 'Magenta,'* pp. 736, 800, 841 (1875).
Thalassogeron cautus, *Ridgw. Man. N. Am. Birds*, p. 53 (1887).

Adult male. Head, neck, lower back, upper tail-coverts, whole

* The following Albatros has recently been described by Mr. G. E. Verrill from specimens obtained by Mr. Comer from Gough Island in the South Atlantic Ocean:—

THALASSOGERON EXIMIUS.

Thalassogeron eximius, *G. E. Verrill, Tr. Connect. Ac.* ix. p. 440, pl. 8. figs. 1, 2 (1895).

"*Sp. char.* Similar in plumage to *T. chlororhynchus*, but the lower mandible lacks completely the transverse yellow bar at its base, and is entirely black, except at the extreme outer end, where it is slightly tipped with light horn-colour. The bright yellow of the culmen begins almost at its extreme base, and gradually deepens and brightens into orange in the middle, and finally into dull red on the unguis, growing paler towards the tip. Sides and back of head pale ash-grey, forehead white. No dark spot behind the eye. Tarsus, tail, and two outer toes longer than in *T. chlororhynchus*, and bill somewhat deeper at the base. Wing 19·25 inches, tail 8·5, tarsus 3·05–3·07, culmen 4·40–4·62, middle toe and claw 4·44–4·49, outer toe and claw 4·32–4·35." (*G. E. Verrill, l. s. c.*)
Gough I., breeding.
In the paper the bird is described in greater detail.

under surface, under wing-coverts, and axillaries white; a greyish-black mark in front of the eye and extending over it, its edges not sharply defined, but passing into pale grey, which spreads over the face; back, wings, and tail greyish brown, the interscapulary region ashy: bill (skin) pale horn-colour; legs and feet yellow. According to Gould, the bill is "light vinous-grey or bluish horn-colour, except on the culmen, where it is more yellow, particularly at the base; the mandible is surrounded at the base with a narrow belt of black, which also extends on each side of the culmen to the nostrils; base of the mandible surrounded by a belt of rich orange, which extends to the corners of the mouth; feet bluish white; irides brown." Total length about 35 inches, wing 22, tail 9, bill from gape 6, tarsus 3·7, middle toe 5·7, inner toe 4·9.

Hab. Coast of Tasmania.

The single specimen in the Collection is of larger dimensions than either of those described by Gould and Ridgway.

a. ♂ ad. sk.	Coast of Tasmania.	Gould Coll.	(One of the types of the species.)

2. Thalassogeron salvini.

Diomedea cauta, *Buller, Trans. N. Zeal. Inst.* vi. p. 217 (1878) (*nec Gould*); *id. op. cit.* xxiv. p. 67 (1892); *id. op. cit.* xxv. p. 76 (1893); *id. Birds N. Zeal.* ed. 2, ii. p. 203 (1888); *Cheeseman, Tr. N. Zeal. Inst.* xxi. p. 125 (1889).

Thalassogeron salvini, *Rothsch. Bull. Brit. Orn. Club*, i. p. lviii (June 1893); *id. Ibis*, 1893, p. 572.

Diomedea salvini, *Buller, Tr. N. Zeal. Inst.* xxvii. p. 122 (1895).

Adult. Similar to *T. cautus*, but the head, except the forehead and crown, greyer, the upper edge of the loral patch more clearly defined, and contrasting strongly with the white forehead and crown; the bill much more slender, less elevated at the base, and of a leaden colour; tarsi and toes shorter. Total length about 38 inches, wing from carpal joint 22, tail 8·6, bill from gape 5·9, from base of culmen 5·5, tarsus 3·6, middle toe 5·3, outer toe a trifle shorter, inner toe 4·5. (*Mus. W. Rothschild.*)

Hab. New Zealand Seas.

a. Ad. sk.	New Zealand.	Hon. W. Rothschild [P.].	(A typical specimen.)

3. Thalassogeron layardi.

Allied to *T. cautus* and *T. salvini*. From the former it differs in its more slender bill, shorter tarsus, and smaller feet; from the latter in its slightly smaller and narrower bill, shorter tarsus and toes, and also its much whiter head and neck. Total length about 39 inches, wing 22, tail 8·5, bill from gape 6, from base of culmen 5·4, tarsus 3·5, middle toe 5·04, outer toe a trifle shorter, inner toe 4·4.

Hab. Cape Seas.

a. Ad. sk.	Cape Seas (*E. L. Layard*).	Shelley Coll.	(Type of species.)

4. Thalassogeron culminatus.

Diomedea chlororhynchos (*nec Gm.*), *Audub. Orn. Biogr.* v. p. 326 (1839); *id. Birds Am.* 8vo ed. vii. p. 196 (1844); *Lawr. Birds N. Am.* p. 822 (1860).

Diomedea culminata, *Gould, Ann. & Mag. N. H.* xiii. p. 361 (1844); *id. Birds Austr.* vii. pl. 41 (1848); *id. Handb. Birds Austr.* ii. p. 436 (1865); *Gray, Gen. Birds*, iii. p. 650, pl. 179 (1844); *id. Hand-l.* iii. p. 109 (1871); *Peale, U.S. Expl. Exp.* viii. p. 337 (1848); *Reich. Av. Syst., Natatores*, pl. 28. fig. 796 (1850); *Bp. Consp. Av.* ii. p. 185 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Schl. Mus. P.-B.*, vi. Procell. p. 35 (1863); *Coues, Pr. Ac. Phil.* 1866, pp. 183, 188; *Layard, Birds S. Afr.* p. 364 (1867); *Hutton, Cat. Birds N. Zeal.* p. 44 (1871); *Finsch, Verh. z.-b. Ges. Wien*, 1872, p. 270; *Cab. & Reich. J. f. Orn.* 1876, p. 328; *Moseley, Notes Nat. 'Chall.'* pp. 129, 183 (1879); *Sharpe, Phil. Trans.* clxviii. p. 147 (1879); *id. ed. Layard's Birds S. Afr.* p. 773 (1884); *Salv. Voy. 'Chall.', Zool.* ii. pt. viii. p. 149 (1881); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 230 (1881); *A. O. U. Check-l. N. Am. Birds*, p. 98 (1886); *Lucas, Auk*, iv. p. 3 (1887); *Buller, Trans. N. Zeal. Inst.* xxiv. p. 68 (1892).

Thalassarche culminata, *Giyl. Faun. Vert. Oceano*, p. 59 (1870); *id. Viagg. 'Magenta,'* pp. 841, 842 (1875).

Thalassogeron culminatus, *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 358 (1884); *Ridgw. Man. N. Am. Birds*, p. 52 (1887); *Chamberl. Auk*, v. p. 107 (1888); *Comeau, Auk*, v. p. 318 (1888).

Adult. Upper surface dark sooty brown, paler on the interscapular area; rump and under surface white; head and neck whitish grey, a dark patch in front of and above the eye: tail dark greyish brown, the shafts white: bill blackish horn-colour, the culmen paler and yellowish, the tip whitish, ventral edge of the mandible yellowish: legs yellow. Total length about 36 inches, wing 20, tail 7·7, bill 5·2, tarsus 3·25, middle toe 4·9, outer toe 4·7, inner toe 4·1.

Hab. Southern Oceans, ranging to the Pacific coasts of Central America.

a.	Ad. sk.	Kerguelen Land.	Hume Coll.
b.	Ad. st.	Indian Ocean.	Old Collection.
c.	Ad. sk.	South Seas.	Antarctic Exped.
d.	Ad. sk.	South Seas.	J. C. Sturgeon, Esq. [P.].
e.	Imm. sk.	Coast of Tasmania, Aug. 1839.	Gould Coll.
f.	Ad. sk.	Coast of Australia.	Gould Coll.
g.	Ad. sk.	Coast of Australia (*Cockerell*).	Salvin-Godman Coll.
h.	Ad. sk.	Coast of Panama.	T. Bridges [C.].

5. Thalassogeron chlororhynchus.

Yellow-nosed Albatros, *Lath. Gen. Syn.* iii. pt. 2, p. 309, pl. 94 (1785); *id. Gen. Hist. Birds*, x. p. 52, pl. 169 (1824).

Diomedea chlororhynchos, *Gm. Syst. Nat.* i. p. 568 (1788); *Lath. Ind. Orn.* ii. p. 790 (1790); *Vieill. N. Dict. d'Hist. Nat.* p. 287 (1816); *Steph. in Shaw's Gen. Zool.* xiii. p. 262 (1826); *Temm. Pl. Col.* 468 (1829); *Schinz, Naturg. Vög.* p. 395, pl. 135 (1832);

Gould, Birds Austr. vii. pl. 42 (1844); *id. Handb. Birds Austr.* ii. p. 437 (1865); *Gray, List Anseres Brit. Mus.* p. 166 (1844); *id. Hand-l.* iii. p. 109 (1871); *Reich. Av. Syst., Natatores*, pl. 26. fig. 347, pl. 28. figs. 794–5 (1850); *Kjærb. Orn. Dan.* pl. 7. f. 4 (1851); *Brehm, Naum.* 1855, p. 295; *Bp. Consp. Av.* ii. p. 185 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Layard, Ibis*, 1862, pp. 97, 254, 1869, p. 377; *id. Birds S. Afr.* p. 364 (1867); *Schl. Mus. P.-B.*, vi. Procell. p. 35 (1863); *D. Walker, P. Z. S.* 1863, pp. 378, 379; *Bree, Birds Eur.* iv. p. 123 (1863); *Verr. in Vinson's Voy. Madag.*, Annexe B, p. 4 (1865); *Coues, Pr. Ac. Phil.* 1866, pp. 184, 188; *Degl. & Gerbe, Orn. Eur.* ii. p. 368 (1867); *Pollen & Van Dam, Faun. Madag.* ii. p. 145 (1868); *Pelz. Reise Novara, Zool.* i. *Vög.* p. 149 (1869); *Elliot, Birds N. Am.* ii. pl. 58 (1867); *Finsch, J. f. Orn.* 1870, p. 375; *Hutton, Cat. Birds N. Zeal.* p. 44 (1871); *Buller, Birds N. Zeal.* p. 294 (1873); *id. op. cit.* ed. 2, ii. p. 202 (1888); *Cab. & Reichenow, J. f. Orn.* 1876, p. 328; *Salvin in Rowley's Orn. Misc.* i. p. 238 (1876); *Hartl. Vög. Madag.* p. 378 (1877); *Saund. P. Z. S.* 1880, p. 165; *Milne-Edw. & Grand. Hist. Madag., Ois.* p. 668 (1881); *Sharpe, ed. Layard's Birds S. Afr.* p. 772 (1884); *Finsch, Ibis*, 1888, p. 309.

Diomedea chrysostoma, *Forst. Descr. Anim.* p. 24 (1844).

Diomedea olivaceorhyncha, *Gould, Ann. & Mag. N. H.* xiii. p. 361 (1844); *Gray, Gen. Birds*, iii. p. 650 (1844).

Diomedea olivaceirostris, *Bp. Consp. Av.* ii. p. 185 (1855); *Coues, Pr. Ac. Phil.* 1866, pp. 186, 188.

Diomedea profuga, *Solander, MS.*; *Gray, Hand-l.* iii. p. 109 (1871); *Salv. in Rowley's Orn. Misc.* i. p. 238 (1876).

Thalassarche chlororhynchus, *Gigl. Faun. Vert. Oceano*, p. 59 (1870); *id. Viagg. 'Magenta,'* pp. 106, 725 (1875).

Thalassogeron chlororhynchus, *Ridgw. Man. N. Am. Birds*, p. 53 (1887).

Adult. Upper surface dark sooty-brown, the wings and scapulars a little darker, the middle of the back tinged with grey; rump and whole under surface white; the head and neck white slightly tinged with grey; an indistinct dark grey mark in front of the eye; tail dark grey, the shafts white, outer rectrix white next the shaft: bill black, culmen yellow, passing into blood-orange at the tip, base of the mandible yellow, the tip also slightly yellow; legs flesh-colour. Total length about 33 inches, wing 18·8, tail 7·7, bill 5·2, tarsus 3·1, middle toe 4·2, outer toe 4, inner toe 3·55.

Hab. Southern Oceans.

a. Ad. sk.	Australia.	Sir G. Grey [P.].
b. Ad. sk.	Australia.	Salvin-Godman Coll.
c, d. Ad. sk.	Southern Indian Ocean, lat. 34° 25′ S., Sept. 14, and lat. 29° 45′ S., long. 57° 39′ E., Oct. 24.	Earl of Crawford and Balcarres [P.].
e. ♂ ad. st.	South Atlantic Ocean, lat. 23° 47′ S., long. 5° 10′ W. (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
f–h. Skulls.		

3. PHŒBETRIA.

Type.

Phœbetria, *Reich. Syst. Av., Longip.* p. v (1852); *Coues, Pr. Ac. Phil.* 1866, p. 186; *Forbes, Voy. Chall., Zool.* iv. pt. xi. p. 42 &c. (1882); *Ridgw. Man. N. Am. Birds*, p. 53 (1887) ..... P. fuliginosa.
Diomedea (partim), *Bp. Consp. Av.* ii. p. 184 (1855).

Range. Southern Oceans.

1. Phœbetria fuliginosa.

Albatros with a White Eyebrow, *Cook, Voy.* i. p. 38.
Sooty or Brown Albatros, *Forster, Voy.* i. p. 91; *Lath. Gen. Syn.* iii. pt. 1, p. 309 (1785); *id. Gen. Hist. Birds*, x. p. 54 (1824).
Great Black Petrel, *Lath. Gen. Syn. Suppl.* ii. p. 333 (1802).
Diomedea fuliginosa, *Gm. Syst. Nat.* i. p. 568 (1788); *Vieill. N. Dict. d'Hist. Nat.* i. p. 288 (1816); *Less. Man. d'Orn.* ii. p. 351 (1828); *Steph. in Shaw's Gen. Zool.* xiii. p. 263 (1826); *Temm. Pl. Col.* 469 (1829); *Schinz, Naturg. Vög.* p. 395, pl. 135 (1832); *Vigors, Voy. 'Blossom,' Zool.* p. 39 (1839); *Gray, Gen. Birds*, iii. p. 650 (1844); *id. List Anseres Brit. Mus.* p. 166 (1844); *id. Cat. B. Trop. Isl. Pac.* p. 57 (1859); *id. Ibis*, 1862, p. 247; *id. Hand-l.* iii. p. 109 (1871); *Peale, U.S. Expl. Exp.* viii. p. 337 (1848); *Gould, Birds Austr.* vii. pl. 44 (1848); *id. P. Z. S.* 1859, p. 98; *Reich. Av. Syst., Natatores*, pl. 27 (1850); *Bp. Consp. Av.* ii. p. 186 (1855); *id. Compt. Rend.* xlii. p. 768 (1856); *Lawr. Birds N. Am.* p. 823 (1860); *Layard, Ibis*, 1862, p. 95, 1863, p. 245, 1867, p. 458; *id. Birds S. Afr.* p. 365 (1867); *Schl. Mus. P.-B.*, vi. Procell. p. 35 (1863); *D. Walker, P. Z. S.* 1863, p. 378; *Hutton, Ibis*, 1865, p. 284, 1867, p. 186; *id. Cat. Birds N. Zeal.* p. 44 (1871); *Pelz. Reise Novara, Zool* i. *Vög.* p. 149 (1869); *Finsch, J. f. Orn.* 1870, p. 357; *Coues, Key N. Am. Birds*, p. 326 (1872); *Buller, Birds N. Zeal.* p. 296 (1873); *id. op. cit.* ed. 2, ii. p. 205 (1888); *id. Trans. N. Zeal. Inst.* xxiii. p. 40 (1891); *id. op. cit.* xxiv. pp. 68, 84 (1892); *id. op. cit.* xxv. p. 62 (1893); *id. op. cit.* xxvii. p. 121 (1895); *Salv. in Rowley's Orn. Misc.* i. p. 238 (1876); *id. P. Z. S.* 1878, p. 740; *id. Voy. 'Chall.,' Zool.* ii. pt. viii. p. 148 (1881); *Cab. & Reichenow, J. f. Orn.* 1876, p. 328; *Kempen, Bull. Soc. Zool. Fr.* xiv. p. 104; *Moseley, Notes Nat. 'Chall.'* pp. 180, 183, 254 (1879); *Sharpe, Phil. Trans.* clxviii. p. 148 (1879); *id. ed. Layard's Birds S. Afr.* p. 773 (1884); *Saund. P. Z. S.* 1880, p. 165; *id. Ibis*, 1886, p. 124; *Lucas, Auk*, iv. p. 3 (1887); *Cheeseman, Tr. N. Zeal. Inst.* xxiii. p. 224 (1891); *Scl. Ibis*, 1894, p. 498.
Diomedea spadacea, *Less. Man. d'Orn.* ii. p. 391 (1828); *cf. Sharpe, Phil. Trans.*
Diomedea fusca, *Audub. Orn. Biogr.* iv. p. 116 (1838); *id. Birds N. Am.* vii. p. 200, pl. 454 (1844); *Bp. Comp. List*, p. 63 (1838).
Diomedea palpebrata, *Forst. Descr. Anim.* p. 55 (1844).
Phœbetria fuliginosa, *Reich. Syst. Av., Longip.* p. v (1852); *Bp. Compt. Rend.* xlii. p. 768 (1856); *Gould, Handb. Birds Austr.* ii. p. 441 (1865); *Coues, Pr. Ac. Phil.* 1866, pp. 186, 188; *id. Key N. Am. Birds*, p. 326 (1872); *id. op. cit.* ed. 2, p. 776 (1884); *id. Check-l. N. Am. Birds*, p. 125 (1882); *Gigl. Faun. Vert. Oceano*, p. 60 (1870); *id. Viagg. 'Magenta'* (see index) (1875); *Coues & Kidder, Bull. U.S. Nat. Mus.* no. 2, p. 21 (1875); *Kidder, Bull. U.S. Nat. Mus.* no. 3, p. 12 (1876); *Ridgw. Pr. U.S. Nat. Mus.* iii. pp. 12,

230 (1880); *id. Man. N. Am. Birds*, p. 53 (1887); *Forbes, P. Z. S.* 1882, p. 548; *id. Voy 'Chall.,' Zool.* iv. pt. xi. p. 42 (1882); *Salv. Cat. Strickl. Coll.* p. 132 (1882); *Baird, Brew., & Ridgw. Water-Birds N. Am.* ii. p. 359 (1884); *A. O. U. Check-l. N. Am. Birds*, p. 98 (1886); *Lucas, Auk*, iv. p. 3 (1887); *Buller, Tr. N. Zeal. Inst.* xxv. p. 76 (1893).

Diomedea fuliginosa, var cornicoides, *Hutton, Ibis*, 1867, pp. 186, 192.

Diomedea antarctica, *Solander MS., cf. Salv. in Rowley's Orn. Misc.* i. p. 237 (1876).

Adult. Plumage generally sooty, a little paler on the interscapular area and on the under surface, a white ring (broken in front) round the eye: bill black, the groove on the mandible in life orange; feet dark hazel. Total length about 36 inches, wing 19·5; tail, central rectrices 10·5, lateral rectrices 7; bill 4·5, tarsus 3, middle toe 4·5, outer toe a trifle shorter, inner toe 3·8.

Hab. Southern Oceans.

Individuals with a much greyer abdomen and back are not uncommon mingled with the ordinary form. Capt. Hutton has named them *Diomedea fuliginosa* var. *cornicoides*. If these birds can be traced to a definite breeding-place where they alone are found, it would be well to assign them specific rank.

a. Ad. sk.	S. Indian Ocean, lat. 37° 39′ S., long. 29° 18′ E., Oct. 10.	Earl of Crawford and Balcarres [P.].
b. ♂ ad. sk.	S. Indian Ocean, lat. 38° S., long. 30° E., April 15, 1847 (*J. Macgillivray*).	Voy. H.M.S. 'Rattlesnake.'
c. Ad. sk.	South Seas.	Antarctic Exped.
d. Ad. st.	South Seas.	Purchased.
e. Ad. sk.	South Seas.	J. C. Sturgeon, Esq. [P.].
f. Ad. sk.	Christmas Harbour, Kerguelen Land, May 25, 1840.	Dr. R. McCormick [P.].
g. ♀ ad. sk.	Royal Sound, Kerguelen Land.	Capt. Inglis.
h. Ad. sk.	Kerguelen Land.	Voy. H.M.S. 'Challenger.'
i. ♂ ad. sk.	Ice Barrier, Feb. 10, 1874.	Voy. H.M.S. 'Challenger.'
j. Ad. st.	Coast of Australia.	Old Coll.
k. Ad. st.	Coast of Australia.	Sir G. Grey [P.].
l. Ad. sk.	Coast of S. Australia.	Purchased.
m, n. Ad. sk.	Coast of S. Australia.	Sir G. Grey [P.].
o. Ad. sk.	New Zealand.	Salvin-Godman Coll.
p. Ad. sk.	Antipodes I. (*Sir P. A. Buckley*).	Countess of Galloway [P.].
q. Ad. sk.	South Pacific Ocean.	Hume Coll.
r–v. 5 skulls.		

APPENDIX TO TUBINARES.

Containing references to doubtful species which have not yet been identified.

Procellaria brasiliana, Gm. Syst. Nat. i. p. 564.—Probably not a Petrel.

Procellaria melanopus, Gm. Syst. Nat. i. p. 562.—Supposed by some writers to belong to *Œstrelata mollis* (Gould), but this identification is very questionable.

Procellaria gelida, Gm. Syst. Nat. i. p. 564.—Perhaps the same as *Priofinus cinereus* (Gm.).

Thalassidroma fasciolata, Tsch. J. f. Orn. 1856, p. 180.

Thalassidroma dubia, Tsch. J. f. Orn. 1856, p. 190.

Puffinus bicolor, Tsch. J. f. Orn. 1856, p. 187.

Procellaria nigra, Tsch. J. f. Orn. 1856, p. 190.

Procellaria lugubris, Tsch. J. f. Orn. 1856, p. 185.

Procellaria maculata, Tsch. J. f. Orn. 1856, p. 185.

Diomedea gibbosa, Gould, Ann. & Mag. N. H. 1844, xiii. p. 361.

Diomedea leptorhyncha, Coues, Pr. Ac. Phil. 1866, p. 178.

ADDENDA.

Add:— Page 6. **Hydrochelidon leucoptera.**

q''. Ad. sk.	Wady Halfa.	Surg.-Major Penton [P.].
r''–t''. ♀ juv. sk.	Lake Sherwa, Nyasa-land, Feb. 1894 (*A. Whyte*).	H. H. Johnston, Esq., C.B. [P.].
u''–y''. ♂ ♀ ad. et vix ad. sk.	Amur Bay, May.	H. Seebohm, Esq. [P.].
z''. ♀ juv. sk.	Amur Bay, Aug. 24.	H. Seebohm, Esq. [P.].
a^3, b^3. ♀ ad. sk.	Persian Gulf, May.	W. D. Cumming, Esq. [C.].

Add:— Page 10. **Hydrochelidon hybrida.**

n^5. ♀ imm. sk.	Calcutta, Dec.	Hume Coll.
o^5. Imm. sk.	Calcutta.	Col. H. H. Godwin-Austen Coll.
p^5. Juv. sk.	Sylhet.	Col. H. H. Godwin-Austen Coll.
q^5. Sternum ♀.	Calcutta, Dec.	Hume Coll.

Add:— Page 25. **Gelochelidon anglica.**

o^4. Imm. sk.	Aden.	Col. Yerbury [P.].

Add:— Page 37. **Seena aurantia.**

f^4. ♀ ad. sk.	Sadia, Dec. 30.	Col. H. H. Godwin-Austen Coll.
g^4. Ad. sk.	Sylhet.	Col. H. H. Godwin-Austen Coll.
h^4. Ad. sk.	Garo.	Col. H. H. Godwin-Austen Coll.
i^4. Ad. sk.	Miri.	Col. H. H. Godwin-Austen Coll.
k^4. ♂ imm. sk.	Manipur.	Col. H. H. Godwin-Austen Coll.

Add:— Page 43. **Sterna melanogaster.**

r''–t''. Ad. sk.	Brahmaputra, Dec., Jan.	Col. H. H. Godwin-Austen Coll.

Add:— Page 51. **Sterna vittata.**

Hab. (p. 52). Bounty Is., to S.E. of New Zealand (*W. Rothschild*, Bull. Br. Orn. Club, no. xxvii. p. xxxvii, May 31st, 1895).

Add :— Page 54. **Sterna fluviatilis.**

Sterna fluviatilis tibetana, *Berezowski & Bianchi, Av. Exped. Potanin. prov. Gan-su*, p. 1 (1891).

w^9–z^9, a^{10}. ♂ ♀ ad. sk.	Great Piton I., 20th–23rd April, 1895.	Messrs. Baring & Grant [C.].
b^{10}, c^{10}. ♂ ♀ ad. sk.	Great Salvage I., 29th April, 1895.	Messrs. Baring & Grant [C.].
d^{10}, e^{10}. Ad. sk.	Fao, Persian Gulf, April, May.	W. D. Cumming, Esq. [C.].

Add :— Page 67. **Sterna longipennis.**

Sterna fluviatilis longipenuis, *Berezowski & Bianchi, Av. Exped. Potanin. prov. Gan-su*, p. 1 (1891).

y, *z*–*a*. ♂ ♀ ad. sk.	Amur Bay, April 19, 1894.	H. Seebohm, Esq. [P.].

Add :— Page 97. **Sterna frontalis.**

x, *y*. Ad. et imm. sk.	New Zealand.	Sir Samuel Scott [P.].

Add :— Page 101. **Sterna anæstheta.**

f^4. ♂ imm. sk.	St. Vincent, Lesser Antilles, June 27 (*W. D. Smith*).	Salvin-Godman Coll.

Add :— Page 106. **Sterna fuliginosa.**

c^3, d^3. Juv. et pull. sk.	Dromedary Is., Kermadec Group, March 23, 1894.	Miss E. Eastwood [P.].

Add :— Page 116. **Sterna minuta.**

i^4. Ad. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [C.].

Add :— Page 120. **Sterna saundersi.**

q'–t'. Vix ad. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [C.].

Correction :— Page 144. **Micranous tenuirostris.**

Last line but one in synonymy of *Anous tenuirostris*, *for* "p. 211 (1892: Polynesia)" *read* p. 77, &c. &c.

Correction :— Page 152. **RHYNCHOPS.**

Second line of genera, *for* p. 223 *read* p. 228.

Add :— Page 207. **Larus ridibundus.**

i^6. Juv. sk.	Galicia, N. Spain.	Dr. V. Lopez-Seoane [P.].
k^6, l^6. ♂ juv. sk.	Aden, Feb. 10 & March 2.	Col. Yerbury [P.].

m^6. ♂ juv. sk.	Dunsiri Mukh, Nov. 30.	Col. H. H. Godwin-Austen Coll.
n^6–r^6. ♂ ♀ ad. et juv. sk.	Amur Bay, March & Nov.	H. Seebohm, Esq. [P.].

Add:— Page 215. **Larus brunneicephalus.**

c^3. Ad. sk.	Eastern India, summer plumage.	Col. H. H. Godwin-Austen Coll.
d^3. Ad. sk.	Chatak, winter plumage.	Col. H. H. Godwin-Austen Coll.

Add:— Page 227. **Larus crassirostris.**

p'–r'. ♂ ♀ ad. et juv. sk.	Amur Bay, March & autumn.	H. Seebohm, Esq. [P.].

Add:— Page 241. **Larus marinus.**

z'. Skeleton.	Kyleakin, I. of Skye, Sept.	J. E. R. Oldfield, Esq. [P.].

Add:— Page 260. **Larus argentatus.**

w^3. Sternum, ♀.	Færoes, Aug. (*H. C. Müller*).	H. Saunders Coll.

Add:— Page 289. **Larus glaucus.**

a''. Sternum, ♀.	Plymouth, winter (*Gatcombe*).	H. Saunders Coll.

Add:— Page 305. **Rissa tridactyla.**

k^3. ♂ ad. sk.	St. Bride's Bay, Wales, Nov. 22.	Hon. W. Edwardes [P.].

Add:— Page 315. **Megalestris catarrhactes.**

o. Sternum, ♀.	Færoes, July (*H. C. Müller*).	H. Saunders Coll.

Add:— Page 322. **Stercorarius pomatorhinus.**

f''. Sternum, ♀ juv.	Yarmouth, Norfolk, Nov. (*J. E. Harting*).	H. Saunders Coll.
g''. Sternum, ♀.	Færoes, Aug. 8 (*H. C. Müller*).	H. Saunders Coll.

Add:— Page 327. **Stercorarius crepidatus.**

z^3. Skeleton.	Spitsbergen, August 1894.	Col. H. W. Feilden [P.].
a^4–b^4. Sterna, ♀ ♂.	Færoes, July (*H. C. Müller*).	H. Saunders Coll.
c^4. Juv. sk.	Wells, Norfolk, Aug. 15, 1895.	Col. H. W. Feilden [P.].

ALPHABETICAL INDEX.

Actochelidon, 40.
acuflavida(Actochelidon), 78.
acuflavida (Sterna), 77.
acuflavidus (Thalasseus), 77.
acuticauda (Sterna), 44.
acutirostris (Sterna), 52.
Adamastor, 390.
adamastor (Procellaria), 391.
Adelarus, 169.
Adelolarus, 169.
Adriatic Gull, 181.
adusta (Diomedea), 442.
Aeipetes, 392.
æquinoctialis (Fulmarus), 396.
æquinoctialis (Majaqueus), 395, 396.
æquinoctialis (Procellaria), 386, 395.
æquinoctialis (Puffinus), 395.
æquorea (Procellaria), 363.
Æstrelata, 397.
affinis (Gavia), 181.
affinis (Gelochelidon), 28.
affinis (Larus), 172, 178, 254, 255, 259, 270.
affinis (Œstrelata), 414.
affinis (Procellaria) 414.
affinis (Sterna), 27, 86.
affinis (Sylochelidon), 87.
affinis (Thalasseus), 87.
affinis (Viralva), 27.
africana (Sterna), 75.
African Tern, 75.
Aganaphron, 136.
agraria (Gelochelidon), 27.
alba (Gavia), 304.
alba (Gygis), 150.
alba kittlitzi (Gygis), 150.
alba (Procellaria), 412.
alba (Sterna), 112, 149.
Albatros, 441.
Albatros, Brown or Chocolate, 441.
Albatros, Chocolate, 441.
Albatros de la Chine, 441.
albatros (Diomedea), 442.
Albatros du Cap de Bonne Espérance, 441.
Albatros, Sooty or Brown, 453.
Albatros, Wandering, 441.
Albatros with a white eyebrow, 453,
Albatros, Yellow-nosed, 451.
albatrus (Diomedea), 440, 441.
albicollis (Rhynchops), 153, 159.
albifasciata (Thalassidroma), 345.
albifrons (Sterna), 24, 97.
albigena(Hydrocecropis), 69.
albigena (Hydrochelidon), 69.
albigena (Sterna), 42, 69.
albigularis (Cymodroma), 367.
albipennis (Larus), 204.
albirostris (Rhynchops), 158.
albistriata (Hydrochelidon), 48.
albistriata (Pelodes), 64.
albistriata (Sterna), 41, 48.
albivitta (Anous), 135.
albivitta (Procelsterna), 135.
albivittatus (Anous), 135.
albogularis (Fregetta), 367.
albogularis (Thalassidroma), 367.
album (Daption), 412.
albus (Fulmarus), 412.
albus (Larus), 173, 301, 302.
aleutica (Sterna), 43, 98, 99, 100.
amaurosoma (Nectris), 387.
amaurosoma (Puffinus), 387.
americanus (Laroides), 263.
anæstheta (Haliplana), 103.
anæstheta (Sterna), 43, 101. 103, 457.
anæsthetica (Sterna), 103.
anæsthetus (Hydrochelidon), 103.
anæsthetus (Melanosterna), 102.
anæsthetus (Onychopriou), 102.
andersonii (Gavia), 235.
andersonii (Gelastes), 235.
andersouii (Larus), 238.
aneiteumensis (Fulmarus), 408.
anglica (Diomedea), 341.
anglica (Gelochelidon), 25, 27, 28, 456.
anglica (Laropis), 27.
anglica (Sterna), 25, 28.
anglica (Viralva), 27.
anglicus (Thalasseus), 27.
anglorum (Cymotomus), 378.
anglorum (Nectris), 376.
anglorum (Procellaria), 377.
anglorum (Puffinus), 368, 369, 377, 379.
anglorum (Thalassidroma), 378.

anjinho (Fulmarus), 421.
anjinho (Procellaria), 420.
anostbætus (Hydrochelidon), 103.
Anous, 5, 136.
antarctica (Aeipetes), 392.
antarctica (Cataracta), 320.
antarctica (Diomedea), 454.
antarctica (Hydrochelidon), 49.
antarctica (Lestris), 318, 319.
antarctica (Megalestris), 314, 319, 320.
antarctica (Priocella), 392.
antarctica (Procellaria), 392.
antarctica (Sterna), 48, 53, 102.
antarctica (Sternula), 49.
antarctica (Thalassœca), 392.
antarcticum (Daption), 392.
antarcticus (Buphagus), 320.
antarcticus (Fulmarus), 392, 393.
antarcticus (Lestris), 247.
antarcticus, var. chilensis (Lestris), 318.
antarcticus (Stercorarius), 318, 319, 321.
antillarum (Sterna), 43, 122, 125.
antillarum (Sternula), 122.
antipodum (Clupeilarus), 247.
antipodum (Larus), 247.
antipodus (Dominicanus), 247.
antipodus (Larus), 246.
arabica (Sterna), 87.
arabicus (Larus), 231.
aranea (Gelochelidon), 27.
aranea (Hydroprogne), 27.
aranea (Sterna), 27, 32.
aranea (Viralva), 28.
Arctic Gull, 327.
Arctic Tern, 62, 64.
arctica (Sterna), 63.
arcticus (Larus), 296.
arcticus (Leucus), 296.
arcticus (Puffinus), 378.
Ardenna, 368.
argentacea (Sterna), 64.
argentaceus (Laroides), 263.
argentaceus (Larus), 262.
argentata (Einalia), 263.
argentata (Sterna), 64.
argentatoides (Glaucus), 263.
argentatoides (Laroides), 263.
argentatoides (Larus), 262, 267, 273.
argentatus (Glaucus), 263.
argentatus (Laroides), 262, 263, 268.
argentatus (Larus), 169, 170, 172, 252, 257, 258, 260, 263, 267, 269, 270, 271, 295, 458.
argentatus, var. cachinnans (Larus), 270.
argentatus, var. occidentalis (Larus), 257.
argentatus, var. vegæ (Larus), 270.
argentatus smithsonianus (Larus), 263, 264.
argentea (Sterna), 122, 124.
argentea (Sternula), 125.
argenteus (Laroides), 263.
argenteus (Larus), 262.
ariel (Pachyptila), 436.
ariel (Prion), 432, 436.
ariel (Procellaria), 436.
ariel (Pseudoprion), 436.
arminjoniana (Æstrelata), 413.
asiaticus (Stercorarius), 331, 333.
assimilis (Laroides), 252.
assimilis (Puffinus), 370, 383.
astrolabæ (Phaëtusa), 97.
aterrima (Œstrelata), 398, 401.
aterrima (Procellaria), 401.
aterrima (Pterodroma), 401.
atlantica (Œstrelata), 400.
atlantica (Procellaria), 399.
atlantica (Pterodroma), 400.
atlanticus (Fulmarus), 400.
Atricilla, 169.
atricilla (Chrœcocephalus), 196.
atricilla (Chroicocephalus), 192, 195.
atricilla (Gavia), 195.
atricilla (Larus), 34, 169, 170, 181, 183, 191, 194, 209, 271.
atricilla (Xema), 195.
atricilloides (Larus), 174.
atripes (Sterna), 97.
atrofasciata (Sterna), 64.
atrofuscus (Anous), 146.
audouinii (Gavia), 272.
audouini (Gavina), 272.
audouini (Glaucus), 272.
audouini (Laroides), 272.
audouini (Larus), 169, 172, 271, 280.
auduboni (Puffinus), 383.
aurantia (Hydrocecropis), 38.
aurantia (Potamochelidon), 37, 38.
aurantia (Sœna), 37, 38, 456.
aurantia (Sterna), 37.
aurantia (Sylochelidon), 37.
auricularis (Puffinus), 369, 380.
australis (Planetis), 50.
australis (Prion), 433.
australis (Sterna), 50.
australis (Sternula), 122.
axillaris (Œstrelata), 399, 418.
azaræ (Dominicanus), 247.
azaræ (Larus), 247.

bailloni (Puffinus), 384.
bailloni (Sternula), 122.
balænarum (Sterna), 43, 111, 120, 121.
balænarum (Sternula), 111.
balthica (Gelochelidon), 27.
balthica (Sylochelidon), 34.
banksi (Pachyptila), 434.
banksi (Prion), 432, 434, 435.

banksi (Procellaria), 434.
banksi (Pseudoprion), 434.
baroli (Puffinus), 379.
barrovianus (Larus), 292.
bathyrhynchus (Gabianus), 298.
bathyrhynchus (Larus), 298.
Bec-en-ciseaux, 153.
belcheri (Adelarus), 226.
belcheri (Blasipus), 222, 225.
belcheri (Larus), 171, 226, 225, 228.
bengalensis (Thalasseus), 87.
bengalensis (Sterna), 87.
benickenii (Lestris), 331.
benickii (Lestris), 330.
bérard, Procellarine, 437.
berardi (Haladroma), 437.
berardi (Pelecanoides), 438.
bergeri (Sterna), 92.
bergii (Pelecanopus), 91.
bergii (Sterna), 40, 42, 81, 89, 97.
bergii (Sylochelidon), 91.
bergii (Thalasseus), 92.
bernsteini (Sterna), 42, 96.
bernsteini (Thalasseus), 96.
bicolor (Larus), 54.
bicolor (Puffinus), 455.
bicuspis (Sterna), 72.
Blacipus, 169.
Black-backed Gull, 245.
Black-headed Gull, 209, 243.
Black Skimmer, 154, 156.
Black Tern, 17, 18.
Black-toed Gull, 327.
blasii (Sterna), 57.
Blasipus, 169.
boji (Lestris), 330.
bonapartii (Chroicocephalus), 186.
bonapartii (Gavia), 185.
bonapartii (Larus), 185, 189.
bonapartii (Xema), 185.
borealis (Glaucus), 270.
borealis (Laroides), 270.
borealis (Larus), 225, 259, 270.
borealis (Procellaria), 426.
borealis (Puffinus), 375.
borealis (Rhynchops), 154.
borealis (Rissa), 308.
Bourgmestre, 292.
boysii (Sterna), 18, 75, 77.
brachypus (Hydrocecropis), 64.
brachypus (Sterna), 64.
brachyrhyncha (Rissa), 312.
brachyrhynchus (Larus), 173, 283, 308, 312, 313.
brachyrhynchus (Lestris), 337.
brachytarsa (Pagophila), 303.
brachytarsa (Sterna), 64.
brachytarsus (Larus), 303.
brachyura (Diomedea), 444, 445.
brasiliana (Procellaria), 455.
brehmi (Larus), 231.
brevicauda (Nectris), 389.
brevicaudatus (Puffinus), 389.
brevicaudus (Priofinus), 389.
brevicaudus (Puffinus), 388.
brevipes (Œstrelata), 398, 408.
brevipes (Procellaria), 408.
brevirostris (Larus). 312.
brevirostris (Œstrelata), 398, 409, 410.
brevirostris (Prion), 436.
brevirostris (Procellaria), 409.
brevirostris (Pseudoprion), 436.
brevirostris (Rissa), 305, 312, 313.
brevirostris (Rhynchops), 156.
brevirostris (Sterna), 23, 37.
breviunguis (Sterna), 49.
bridgesi (Blasipus), 224.
bridgesi (Larus), 224.
Brown Gull, 209, 327.
Brown-headed Gull, 207. 209.
Brown Tern, 106.
bruchi (Larus), 274.
Bruchigavia, 170.
brunneicephalus (Chroicocephalus), 211, 216.
brunneicephalus (Larus), 171, 215, 126, 211, 217, 458.
brunneicephalus (Xema), 216.
brunnicephala (Gavia), 216.
brunniceps (Chroicocephalus), 216.
brunnichii (Rissa), 307.
buffonii (Lestris), 335.
buffoni (Stercorarius), 335.
Buffon's Skua, 336.
bulleri (Diomedea), 441, 448.
bulleri (Larus), 171, 233, 234.
bulleri (Puffinus), 369, 371.
bullocki (Procellaria), 348.
bulweri (Bulweria), 420.
bulweri (Fulmarus), 421.
bulweri (Œstrelata), 421.
bulweri (Procellaria), 420.
bulweri (Thalassidroma), 420.
Bulweria, 368, 420.
Buphagus, 314.
burgeri (Sterna), 92.

cachinnans (Clupeilarus), 255.
cachinnans (Dominicanus), 255.
cachinnans (Laroides), 255, 268.
cachinnans (Larus), 172, 255, 258, 266, 270, 271.
cærulea (Halobæna), 431.
cærulea (Pachyptila), 431.
cærulea (Procellaria), 408, 431.
cærulea (Procelsterna), 133.
cærulea (Sterna), 133.
cæruleus (Anous), 134, 135.
cæsia (Sterna), 21.
cahiricus (Larus), 211.
cahirinus (Larus), 211.
Cahow, 382.

californicus (Laroides), 276.
californicus (Larus), 173, 276.
camtschatika (Hydrocecropis), 68.
camtschatica (Sterna), 67, 99.
camtschatkensis (Larus), 280.
candicans (Thalasseus), 77.
candida (Gygis), 149.
candida (Procellaria), 419.
candida (Sterna), 149.
candidus (Larus), 302.
canescens (Laroides), 280.
canescens (Larus), 209.
canescens (Sterna), 77.
canescens (Thalasseus), 77.
caniceps (Chroicocephalus), 181.
caniceps (Xema), 181.
cantiaca (Actochelidon), 77.
cantiaca (Sterna), 11, 40, 42, 75, 77, 82.
cantiaca acuflavida (Sterna), 77.
cantiacus (Thalasseus), 77.
cantianus (Thalasseus), 77.
canum (Xema), 280.
canus (Gavia), 280.
canus (Glaucus), 280.
canus (Laroides), 280.
canus (Larus), 169, 173, 273, 277, 280, 283.
canus major (Larus), 280.
canus, var. brachyrhynchus (Larus), 283.
canus, var. major (Larus), 280.
canus niveus (Larus), 280.
Cape Hen, 429.
capensis (Calopetes), 429.
capensis (Daption), 428, 429.
capensis (Fulmarus), 429.
capensis (Procellaria), 428
capistrata (Gavia), 210, 211.
capistrata (Xema), 210.
capistratus (Chrœcocephalus), 211.
capistratus (Chroicocephalus), 210.
capistratus (Larus), 185, 209, 211.
capistratus (Xema), 209, 210.
caribbæa (Œstrelata), 403.
caribbæa (Pterodroma), 403.
caribbæus (Fulmarus), 403.
carneipes (Nectris), 386.
carneipes (Priofinus), 386.
carneipes (Puffinus), 370, 372, 386, 387.
caspia (Hydroprogne), 32, 34.
caspia (Sterna), 35, 89.
caspia, var. imperator (Sterna), 35.
caspia (Sylochelidon), 34.
caspia (Thalasseus), 35.
Caspian Tern, 32, 34, 89.
caspica (Sterna), 34.
caspica (Sylochelidon), 35.
caspicus (Thalasseus), 35.
caspius (Helopus), 35.
caspius (Thalasseus), 34.
cassinii (Sterna), 53.
Cataractes, 314.
Catarracta, 314.
catarractes (Catarracta), 316, 318.
catarractes(Stercorarius), 325.
catarrhactes (Larus), 315, 319.
catarrhactes (Lestris), 315, 319.
catarrhactes (Megalestris), 314, 315, 316, 458.
catarrhactes (Stercorarius), 316, 320.
catarrhactes, var. antarcticus (Stercorarius), 320.
catesbæi (Atricilla), 196.
catesbyi (Atricilla), 196.
Catharacta, 314.
Catosparactes, 301.
cauta (Diomedea), 449, 450.
cautus (Thalassogeron), 449.
cayana (Sterna), 35, 80.
cayanus (Thalasseus), 81.
Cayenne Tern, 80.
cayennensis (Phaëthusa), 85.
cayennensis (Sterna), 81, 85.
cayennensis (Sylochelidon), 81.
cenicienta, Gabiota, 198, 200.
cephus (Catarracta), 329.
cephus (Lestris), 331, 336.
cepphus(Catharacta),327.
cepphus (Lestris), 330.
cepphus (Stercorarius), 331, 335.
cervicalis (Œstrelata), 398, 411.
Cetosparactes, 301.
chalcopterus (Laroides), 287.
chalcopterus (Larus), 285, 287, 296.
chalcopterus (Leucus), 287.
Cheimonea, 305.
Chema, 161.
chilensis (Megalestris), 314, 318.
chilensis (Nectris), 387.
chilensis (Stercorarius), 318.
chinensis (Diomedea), 444, 445.
Chinese Tern, 113.
chionoptera (Diomedea), 440, 443.
chloripoda (Sterna), 23, 24.
chloripoda (Thalasseus), 24.
chloropoda (Phaethusa), 130.
chlororhyncha (Procellaria), 372.
chlororhynchus (Diomedea), 451.
chlororhynchus (Puffinus), 368, 369, 372.
chlororhynchus (Thalassarche), 452.
chlororhynchus (Thalassogeron), 449, 452.
chlororhynchus (Thiellus), 372.
Chrœocephalus, 169.
Chroicephalus, 169.
Chroicocephalus, 169.
Chroocephalus, 169.

chrysostoma (Diomedea), 451.
cinerarius (Larus), 207, 209, 230, 306.
cinerascens (Rhynchops), 156.
cinerea (Nectris), 373, 375.
cinerea (Procellaria), 375, 390.
cinerea (Procelsterna), 132, 134, 135.
cinerea (Rissa), 307.
cinerea (Sterna), 6, 49, 135.
cinerea (Stolida), 133.
cinereo-caudatus (Larus), 192.
Cinereous Fulmar, 390.
Cinereous Tern, 6.
cinereus (Adamastor), 391.
cinereus (Anous), 128, 134, 135.
cinereus (Larus), 252, 262, 279.
cinereus (Priofinus), 390, 455.
cinereus (Puffinus), 373, 375, 386, 390.
Cirrhocephala, 169.
cirrhocephala (Gavia), 198.
cirrhocephalum (Chroicocephalus), 200.
cirrhocephalum (Xema), 188, 200, 201, 204.
cirrhocephalus (Chroicocephalus), 198.
cirrhocephalus (Larus), 170, 171, 189, 199, 201, 203, 204, 240.
Cirrocephalus, 170.
citrirostris (Larus), 312.
Clupeilarus, 170.
coccineirostris (Sterna), 64.
Coddy Moddy, 305.
collaris (Larus), 162.
collaris (Xema), 163.
columbina (Bulweria), 420.
columbina (Sterna), 77.
columbinus (Gelastes), 231.
columbinus (Larus), 18, 55, 230.
columbinus (Procellaria), 420.
comata (Sterna), 84.
Common Gull, 279, 306.
Common Skua, 316.
Common Tern, 46.
conspicillata (Procellaria), 395.
conspicillatus(Fulmarus), 396.
conspicillatus (Majaqueus), 396.
conspicillatus (Puffinus), 396.
consul (Glaucus), 292.
consul (Larus), 292.
cooki (Œstrelata), 399, 408, 417.
cooki (Fulmarus), 418.
cooki (Procellaria), 408, 416, 417.
cooki (Rhantistes), 417.
Cookilaria, 397.
Coprotheres, 322.
coprotheres (Catharacta), 327.
corallinus (Bruchigavia), 236.
corallinus (Gelastes), 235.
cornicoides (Diomedea), 454.
coronata (Hydrocecropis), 51.
coronata (Sterna), 51.
crassirostris (Adelolarus), 221.
crassirostris (Blasipus), 228.
crassirostris (Larus), 169, 171, 221, 227, 458.
crassirostris (Xema), 221.
Creagrus, 161.
creatopus (Puffinus), 369, 375.
crepidata (Lestris), 329, 335.
crepidatus (Larus), 322, 327.
crepidatus(Oceanus),334.
crepidatus (Stercorarius), 322, 327, 329, 458.
Crimson-billed Gull, 235.
cristata (Sterna), 81, 90.
cristatus (Pelecanopus), 92.
cristatus (Thalasseus), 81, 91.
cryptoleucura (Cymochorea), 350.
cryptoleucura (Oceanodroma), 347, 350.
cucullata (Gavia), 192.
cucullatus (Chroicocephalus), 191.
cucullatus (Larus), 191.
culminata (Diomedea), 448, 451.
culminata (Thalassarche), 451.
culminatus (Thalassogeron), 449, 451.
cuneatus (Puffinus), 369, 370.
curilicus (Puffinus), 389.
Cut Water, 163.
cyanorhynchus (Larus), 279.
Cymatobulus, 395.
Cymochorea, 347.
Cymodroma, 358, 364.
Cymotomus, 368.

Damier, 428.
danica (Sternula), 118.
danubialis (Sternula), 118.
Daption, 422, 428.
decorata (Gygis), 128.
defilippiana (Œstrelata), 399, 417.
delalandii (Hydrochelidon), 13.
delamotta (Hydrocecropis), 12.
delamotta (Sterna), 11.
delamotte (Sterna), 11.
delamotti (Sternula), 12.
delawarensis (Larus), 172, 273.
delawarensis, var. californicus (Larus), 276.
derogata (Diomedea), 444.
desolata (Æstrelata), 408, 435.
desolata (Procellaria), 408, 434.
desolatum (Daption), 435.
desolatus (Prion), 431, 434, 435.
desolatus (Pseudoprion), 435.
Diablotin, 403.
diabolica (Æstrelata), 403.
diabolica (Procellaria), 402.
dichrous (Puffinus), 382.
Diomedea, 440, 449, 452.
Diomedeidæ, 342.
discolor (Haliplana), 103.
Dominicanus, 169.

dominicanus (Larus), 172, 245, 246.
d'orbignyi (Larus), 175.
dougalli gracilis (Sterna), 72.
dougalli (Hydrocecropis), 72.
dougalli (Sterna), 40, 42, 57, 70.
douglasi (Sterna), 72.
dubia (Thalassidroma), 455.
Duck, Blue-Mountain, 403.
Dusky Tern, 106.

eburnea (Gavia), 302.
eburnea (Pagophila), 301, 303, 304.
eburneus (Cetosparactes), 303.
eburneus (Larus), 302, 304.
Egg-Bird, 106.
Egyptian Tern, 25.
Enalia, 170.
elegans (Phaëthusa) 84, 85.
elegans (Puffinus), 370, 385.
elegans (Sterna), 42, 82, 84, 85.
elegans (Thalasseus), 84.
epargyrus (Larus), 268.
Epitelarus, 299.
Epitelolarus, 170.
epomophera (Diomedea), 442.
Epouvantail, 17, 18.
erythropus (Larus), 209.
erythrorhynchos (Sterna), 81.
erythrorhynchus (Sylochelidon), 81.
eurygnatha (Sterna), 42, 85.
exhulans (Diomedea), 442.
exilis (Sterna), 21, 126.
eximius (Thalassogeron), 449.
exsul (Pelecanoides), 438.
externa (Œstrelata), 398, 411.
exulans (Diomedea), 440, 441, 443, 446.

fabricii (Larus), 243.
faeroensis (Hydrobates), 245.
farroensis (Larus), 280.
fasciata (Procellaria), 435.
fasciolata (Thalassidroma), 455.
fisheri (Œstrelata), 399, 415, 416.
fissipes (Hydrochelidon), 7, 19, 21.
fissipes (Sterna), 6, 18, 21.
fissipes (Sternula), 118.
flavipes (Larus), 246, 252.
flavirostris (Adamastor), 375.
flavirostris (Œstrelata), 375.
flavirostris (Procellaria), 375.
flavirostris (Rhynchops), 153, 158.
fluviatilis (Hydrochelidon), 12.
fluviatilis (Sterna), 42, 53, 54, 56, 64, 65, 68, 69, 457.
forsteri (Pachyptila), 433.
forsteri (Prion), 433.
forsteri (Procellaria), 431, 432.
forsteri (Sterna), 41, 46.
Fouquet des Plulippines, 137.
franklini (Chroicocephalus), 191, 192.
franklini (Gavia), 192.
franklini (Larus), 170. 191, 192.
franklini (Melanolarus), 192.
franklini (Xema), 191.
frater (Anous), 139.
fregata (Pelagodroma), 363.
fregata (Procellaria), 363, 366.
fregata (Thalassidroma), 363.
fregatta (Pachyptila), 366.
fregatta (Procellaria), 364.
Fregetta, 364.
fregetta (Thalassidroma), 366.
frenata (Sterna), 21, 122.
frenata (Sternula), 122.
fritzei (Dominicanus), 247.
fritzei (Larus), 247.
frobeenii (Larus), 227.
frobeenii (Sterna), 130.
frontalis (Larus), 297.
frontalis (Sterna) 42, 68, 97, 457.
fuliginosa (Diomedea), 453.
fuliginosa (Haliplana), 108, 109.
fuliginosa, var. crissalis, (Haliplana), 109.
fuliginosa (Hydrochelidon), 108.
fuliginosa (Nectris), 386, 387.
fuliginosa (Oceanodroma), 347, 352.
fuliginosa (Œstrelata), 400.
fuliginosa (Phœbetria), 353, 452, 453.
fuliginosa (Procellaria), 352, 395, 399.
fuliginosa (Pterodroma), 399.
fuliginosa (Sterna), 40, 43, 52, 102, 106, 109, 457.
fuliginosa (Thalassidroma), 352.
fuliginosum (Daption), 352.
fuliginosus (Anous), 109.
fuliginosus (Larus), 171, 222, 223, 224, 226.
fuliginosus (Leucophæus), 222.
fuliginosus (Onychoprion), 108.
fuliginosus (Puffinus), 386.
fuligula (Sterna), 102.
Fulmar, 455.
Fulmarinæ, 368.
Fulmarus, 422, 424.
fulva (Rhynchops), 154, 156.
furcata (Oceanodroma), 347, 357.
furcata (Pachyptila), 357.
furcata (Procellaria), 357.
furcata (Thalassidroma), 357.
furcata (Xema), 161, 164, 165.
furcatus (Larus), 165.
fusca (Catarracta), 315.
fusca (Diomedea), 453.
fusca (Lestris), 316.
fuscata (Sterna), 106.
fuscatus (Anous), 108.

fuscescens (Dominicanus), 252, 268.
fuscescens (Clupeilarus), 255.
fuscescens (Laroides), 252.
fuscescens (Larus), 258, 268.
fuscus (Clupeilarus), 252.
fuscus (Dominicanus), 252.
fuscus (Laroides), 252.
fuscus (Larus), 170, 172, 228, 246, 250, 254, 257, 262, 270.
fuscus (Lestris), 247, 320.
fuscus (Leucus), 252.
fuscus (Stercorarius), 316.

Gabianus, 161, 297.
Gabiota blanca, 200.
Gachet, 17.
galapagensis (Anous), 136, 143.
galericulata (Phaëtusa), 81.
galericulata (Sterna), 81, 84, 85, 92.
galericulata (Sylochelidon), 81.
galericulata (Thalasseus), 84.
galericulatus (Thalasseus), 82.
gama (Nectris), 372.
garnoti (Halodroma), 439.
garnoti (Pelecanoides), 439.
garnoti (Priocella), 393.
garnoti (Procellaria), 393.
garnoti (Puffinuria), 439.
Garrodia, 358, 361.
Gavia, 136, 169, 301, 305.
gavia (Æstrelata), 381.
gavia (Larus), 307.
gavia (Puffinus), 369, 380, 381.
Gavina, 169.
gayi (Sterna), 84.
Gelastes, 169.
gelastes (Chroicocephalus), 230.
gelastes (Gavia), 230.
gelastes (Gelastes), 231.
gelastes (Lambruschinia), 231.
gelastes (Larus), 169, 171, 230, 232.
gelastes (Xema), 230.
gelida (Procellaria), 390, 455.
gelidus (Adamastor), 391.
gelidus (Fulmarus), 391.
gelidus (Puffinus), 391.
Gelochelidon, 4, 25.
genei (Gelastes), 231.
genei (Larus), 230.
genei (Xema), 230.
georgi (Gabianus), 298.
georgii (Larus), 298.
gibbosa (Diomedea), 455.
gigantea (Ossifraga), 422, 423.
gigantea (Procellaria), 422.
giganteus (Fulmarus), 423.
giganteus (Larus), 243.
gilliana (Diomedea), 447.
glacialis (Fulmarus), 424, 425, 426, 428.
glacialis (Glaucus), 296.
glacialis (Laroides), 292, 296.
glacialis (Larus), 292.
glacialis (Procellaria), 426, 427.
glacialis, var. β (Procellaria), 393.
glacialis (Sterna), 68.
glacialoides (Fulmarus), 394.
glacialoides (Priocella), 393, 394.
glacialoides (Procellaria), 393.
glaucescens (Glaucus), 285.
glaucescens (Laroïdes), 285.
glaucescens (Larus), 173, 284, 286, 287, 288, 293.
glaucescens (Leucus), 285.
glaucodes (Chrœocephalus), 204.
glaucodes (Larus), 171, 201, 203, 204, 205.
glaucodes (Xema), 204.
glaucoides (Laroides), 296.
glaucoides (Larus), 296.
glaucopterus (Glaucus), 285.
glaucopterus (Laroides), 285.
glaucopterus (Larus), 284, 285.
glaucotes (Chroicocephalus), 204.
glaucotes (Gavia), 204.
glaucotes (Larus), 189.
glaucotis (Gavia), 204.
Glaucous Gull, 292.
Glaucus, 169.
glaucus (Laroides), 292.
glaucus (Larus), 169, 173, 262, 289, 296, 297, 458.
glaucus (Leucus), 292.
glaucus (Plautus), 292.
glupischa (Fulmarus), 471.
Goéland à Manteau gris, 262.
Goéland à Manteau gris-blanc, 292.
Goéland à Manteau gris-brun, 292.
Goéland à Manteau noir, 243.
Goéland brun, 315.
Goéland varié, 243.
Goiland blanc du Spitzberge, 302.
Goiland brun, 315.
Goiland cendré, 260.
Goiland gris, 250.
Goiland noir, 241.
Goiland, Petit, 209.
Goiland varié, 260.
gouldi (Æstrelata), 400.
gouldi (Bruchigavia), 235.
gouldii (Gavia), 235.
gouldi (Gelastes), 235.
gouldii (Larus), 236.
gouldi (Majaqueus), 400.
gouldi (Procellaria), 400.
gouldi (Sterna), 109, 118.
gracilis (Oceanites), 361.
gracilis (Procellaria), 361.
gracilis (Sterna), 72.
gracilis (Thalassidroma), 361.
graellsii (Larus), 252.
grallaria (Cymodroma), 366.
grallaria (Fregetta), 366.
grallaria (Oceanites), 366.
grallaria (Procellaria), 364.
grallaria (Thalassidroma), 366.
gravis (Procellaria), 373, 381.
gravis (Puffinus), 368, 369, 373.

Great Gull, 177.
gregaria (Rissa), 308.
Grisard, 243, 260.
grisea (Æstrelata), 410.
grisea (Hydrochelidon), 7.
grisea (Procellaria), 386, 409, 412.
grisea (Sterna), 6.
griseum (Daption), 386.
griseus (Fulmarus), 410.
griseus (Puffinus), 370, 387.
Guifette, 18.
gularis (Œstrelata), 399, 414, 416.
gularis (Procellaria), 414.
Gull, Adriatic, 181.
Gull, Arctic, 327.
Gull-billed Tern, 28.
Gull, Black-backed, 245.
Gull, Black-headed, 209, 243.
Gull, Black-toed, 327.
Gull, Brown, 209, 327.
Gull, Brown-headed, 207, 209.
Gull, Brown and Ferruginous, 215.
Gull, Common, 279, 306.
Gull, Crimson-billed, 235.
Gull, Glaucous, 292.
Gull, Great, 177.
Gull, Great Black-backed, 244.
Gull, Great Black and White, 241.
Gull, Herring, 262.
Gull, Iceland, 292, 296.
Gull, Italian, 181.
Gull, Ivory, 302.
Gull, Kittiwake, 307.
Gull, Laughing, 194, 209.
Gull, Lesser Black-backed, 252.
Gull, Little, 174.
Gull, Masked, 210.
Gull, Pacific, 297.
Gull, Pewit, 209.
Gull, Red-legged, 209.
Gull, Sabine's, 163.
Gull, Silvery, 252.
Gull, Tarrock, 307.
Gull, Wagel, 243.
Gull, White, 277.
Gull, Winter, 307.
guttata (Sterna), 108.
guttatus (Planetis), 108.
Gygis, 5, 149.

hæmatorhynchus (Chroicocephalus), 300.
hæmatorhynchus (Larus), 299.
hæmatorhynchus (Leucophæus), 300).
hæsitata (Œstrelata), 391, 397, 398, 402, 403.
hæsitata (Procellaria), 390, 402.
hæsitatus (Fulmarus), 403.
Haladroma, 437.
Haliplana, 41.
Halobæna, 422, 431.
Halocyptena, 343, 346.
hardyi (Lestris), 336.
hardyi (Stercorarius), 337.
harengorum (Laroides), 252.
hartlaubi (Gavia), 240.
hartlaubi (Gelastes), 240.
hartlaubi (Larus), 172, 199, 240.
Hati cabeza negra, 23.
Hati ceja blanca, 124.
Hati cogote obscuro, 23.
Hati pico corto, 23.
havelli (Gelochelidon), 47.
havelli (Sterna), 47.
hawaiiensis (Anous), 148.
hawaiiensis (Micranous), 143, 148.
heermanni (Adelarus), 225.
heermanni (Blasipus), 225.
heermanni (Epitelolarus), 225.
heermanni (Larus), 169, 170, 171, 222, 225, 299.
heermanni (Leucophæus), 225.
heinei (Gavia), 280.
heinei (Larus), 280.
Helopus, 32.
hemprichii (Adelarus), 221.
hemprichi (Larus), 171, 221.
heraldica (Œstrelata), 399, 414.
Herring Gull, 262.
heuglini (Larus), 268.
hiemalis (Procellaria), 426.
Hirondelle de Mer, 20, 55.
hirundinacea (Hydrocecropis), 52.
hirundinacea (Sterna), 41, 51, 52, 53.
hirundo (Hydrocecropis), 57.
hirundo (Larus), 42.
hirundo microptera (Sterna), 58.
hirundo (Sterna), 40, 46, 52, 55, 62, 128.
homochroa (Cymochorea), 355.
homochroa (Oceanodroma), 347, 355.
Hooded Tern, 117.
hornbyi (Oceanodroma), 347, 356.
hornbyi (Procellaria), 356.
hornbyi (Thalassidroma), 356.
hutchinsii (Larus), 292, 293.
hybernus (Larus), 279.
hybrida (Hydrochelidon), 5, 10, 11, 49, 456.
hybridus (Hydrochelidon), 8.
Hydrobates, 343.
Hydrocecropis, 40.
Hydrochelidon, 4, 5.
Hydrocolœus, 169.
Hydroprogne, 4, 32.
hyperboreus (Larus), 292.
hypoleuca (Œstrelata), 398, 409.
hypoleuca (Thalassidroma), 363.

Iceland Gull, 292, 296.
icelandicus (Larus), 296.
ichthyaëtum (Xema), 177.
Ichthyaëtus, 169.
ichthyaëtus (Chroicocephalus), 178.
ichthyaëtus (Gavia), 178.
ichthyætus (Kroikocephalus), 178.
ichthyaëtus (Larus), 170, 176, 270.
ichthyaëtus minor (Larus), 178.
ichthyaëtus (Xema) 178.
ichtyceus (Larus), 177.
immutabilis (Diomedea), 440, 446.
imperator (Thalasseus), 35.

Inca, 132.
inca (Anous), 132.
inca (Larosterna), 132.
inca (Nænia), 132.
inca (Noddi), 132.
inca (Sterna), 132.
incerta (Œstrelata), 398, 405.
incerta (Procellaria), 405.
inconspicua (Sterna), 114.
indica (Hydrochelidon), 13.
indica (Pelodes), 13.
indica (Viralva), 11.
inexpectata (Œstrelata), 405.
inexpectata (Procellaria), 414.
infuscata (Haliplana), 108.
infuscata (Hydrochelidon), 103, 109.
infuscata (Sterna), 103, 107.
infuscata (Thalassipora), 108.
innominatus (Larus), 178.
innotata (Sterna), 13.
intercedens (Rhynchops), 153, 155, 156.
irrorata (Diomedea), 440, 445.
islandicus (Larus), 280, 292, 296.
Italian Gull, 181.
Ivory Gull, 302.

jamaicensis (Œstrelata), 398, 403.
jamaicensis (Procellaria), 403.
jamesonii (Bruchigavia), 236.
jamesoni, var. gouldi (Bruchigavia), 236.
jamesoni (Chroicocephalus), 235.
jamesonii (Gavia), 235.
jamesoni (Gelastes), 235.
jamesoni (Larus), 235, 238.
jamesonii (Xema), 235.
javanica (Hydrochelidon), 8, 13, 44.
javanica (Pelodes), 13, 44.
javanica (Sterna), 11, 16, 44.
javanica (Sternula), 12.
jerdoni (Sternula), 44.

kamtchatchensis (Gavina), 280.
kamtschatchensis (Larus), 280.
keeask (Larus), 322.
keri (Haliplana), 102.
kidderi (Æstrelata), 410.
kitlitzii (Chroicocephalus), 191.
kitlitzii (Gavia), 192.
Kittiwake Gull, 307.
kittlitzi (Gavia), 183.
kittlitzii (Chroicocephalus), 183.
kittlitzii (Gygis), 150.
kittlitzii (Xema), 184.
knudseni (Puffinus), 371.
korustes (Sternula), 72, 74.
kotzebui (Rissa), 308, 310, 313.
Kroicocephalus, 169.
kroicocephalus (Larus), 178.
kuhli (Procellaria), 375.
kuhli (Puffinus), 369, 375, 391.
kumlieni (Larus), 173, 287, 288, 289, 296.
Kutgeghef, 306.

Labbe, 328.
Labbe à longue queue, 334.
Labbus, 322.
lacrimosus (Laroides), 280.
lacrymosus (Gavina), 216.
lacrymosus (Glaucus), 280.
lacrymosus (Larus), 216.
Lagopis, 25.
lambruschini (Gelastes), 230.
lambruschini (Larus), 231.
Lambruschinia, 170.
lambruschinii (Xema), 230.
lariformis (Hydrochelidon), 21.
lariformis surinamensis (Hydrochelidon), 21.
lariformis (Rallus), 17.
Laroides, 169.
Larosterna, 132.
Larus, 161, 169.
latirostris (Procellaria), 433.
Laughing Gull, 194, 209.
lawrencii (Fregetta), 366.
layardi (Thalassogeron), 450.
leachi (Procellaria), 348.
leachi (Thalassidroma), 348.
leptorhyncha (Diomedea), 455.
Lesser Sea Swallow, 17.
Lesser Tern, 116.
lessoni (Fulmarus), 402.
lessoni (Œstrelata), 398, 401, 402.
lessoni (Lestris), 336.
lessoni (Procellaria), 401.
lessoni (Puffinus), 401.
lessoni (Rhantistes), 401.
lessoni (Stercorarius), 336.
Lestris, 314, 322.
leuceretes (Larus), 292.
leucocapillus (Anous), 145, 146.
leucocapillus (Micranous), 143, 145, 148.
leucocephala (Æstrelata), 401.
leucocephala (Procellaria), 401.
leucocephala (Sterna), 146.
leucocephalus (Anous), 146.
leucocephalus (Gelastes), 231.
leucocephalus (Larus), 230.
leucoceps (Anous), 139.
leucoceps (Gavia), 137.
leucogaster (Thalassidroma), 366.
leucogaster (Oceanites), 366.
leucogenys (Hydrocecropis), 12.
leucogenys (Hydrochelidon), 13.
leucomelas (Larus), 177, 298.
leucomelas (Procellaria), 370.
leucomelas (Puffinus), 369, 370.
leucomelas (Thiellus), 370.
leucopareia (Hydrochelidon), 11.
leucopareia (Pelodes), 11.

leucopareia (Sterna), 10.
leucopareia (Viralva), 11.
leucopareius (Hydrochelidon), 13.
Leucophæus, 161, 169, 299.
leucophæus (Glaucus), 268.
leucophæus (Laroides), 268.
leucophæus (Larus), 255, 267.
leucophrys (Œstrelata), 412.
leucophthalma (Xema), 219.
leucophthalmum (Xema), 219.
leucophthalmus (Adelarus), 219.
leucophthalmus (Adelolarus), 219.
leucophthalmus (Chroicocephalus), 219.
leucophthalmus (Larus), 169, 171, 181, 219.
leucoptera (Cookilaria), 416.
leucoptera (Hydrochelidon), 5, 6, 456.
leucoptera (Œstrelata), 408, 416.
leucoptera (Procellaria), 414, 416.
leucoptera (Sterna), 6, 11.
leucoptera (Viralva), 7.
leucopterum (Hydrochelidon), 7.
leucopterus (Glaucus), 296.
leucopterus (Larus), 173, 295, 289, 292, 296, 297.
leucopterus (Leucus), 296.
leucorrhoa (Oceanodroma), 347, 348.
leucorrhoa (Procellaria), 348.
leucorrhoa (Thalassidroma), 348.
leucourus (Hydrochelidon), 7.
Leucus, 169.
l'herminieri (Anous), 108.
lineata (Oceanites), 364.
lineata (Pelea), 364.
lineata (Thalassidroma), 364.
litoreus (Dominicanus), 247.
Little Gull, 174.
littoreus (Larus), 246, 254.
longecaudatus (Cataractes), 336.
longicauda (Lestris), 331, 337.
longicauda(Stercorarius), 334.
longicaudata (Lestris), 336.
longicaudatus (Stercorarius), 337.
longipennis (Hydrocecropis), 68.
longipennis (Sterna), 42, 64, 67, 68, 97, 100, 457.
longirostris (Æstrelata), 418.
longirostris (Bruchigavia), 236.
longirostris (Larus), 236.
longirostris (Œstrelata), 399.
longirostris (Sterna), 91.
lorata (Sterna), 43, 126.
loricata (Sterna), 126.
lugens (Procellaria), 409.
lugubris (Procellaria), 345, 455.
lunata (Haliplana), 100.
lunata (Hydrochelidon), 100.
lunata (Sterna), 43, 100.
lunatus (Onychoprion), 100.

maccormicki (Megalestris), 314, 321.
maccormicki (Stercorarius), 321.
macdougalli (Sterna), 72.
macgillivrayi (Æstrelata), 521.
macgillivrayi (Bulweria), 420, 421.
macgillivrayi (Fulmarus), 421.
macgillivrayi (Procellaria), 421.
macgillivrayi (Thalassidroma), 421.
macrodactyla (Oceanodroma), 347, 351.
macrodactyla (Sterna), 57.
macroptera (Atricilla), 196.
macroptera (Œstrelata), 398, 399, 400.
macroptera (Procellaria), 399.
macroptera (Pterodroma), 400, 410.
macroptera (Sterna), 57.
macropteros (Lestris), 330.
macropterus (Fulmarus), 400.
macrorhyncha (Nectris), 375.
macrorhyncha (Sylochelidon), 35.
macrotarsa (Gelochelidon), 28.
macrotarsa (Sterna), 27.
macroura (Hydrocecropis), 64.
macroura (Sterna), 13, 64.
macrura (Sterna), 42, 50, 51, 62, 68, 99.
maculata (Procellaria), 455.
maculata (Sterna), 124.
maculatus (Larus), 243, 279.
maculipennis (Chroicocephalus), 201.
maculipennis (Gavia), 201.
maculipennis (Larus), 171, 198, 200, 201, 202, 203, 206.
madagascariensis (Stercorarius), 320.
madraspatanus (Rhynchops), 159.
magentæ (Œstrelata), 398, 407.
magnirostris (Phaëthusa), 23.
magnirostris (Prion), 433.
magnirostris (Sterna), 23.
magnirostris (Sylochelidon), 24.
magnirostris (Thalassites), 24.
Majaqueus, 368, 395.
major (Cirrhocephalus), 198.
major (Laroides), 262.
major (Procellaria), 373.
major (Puffinus), 373, 375, 387.
major (Sterna), 35, 58.
manchado, Hati, 124.

marginata (Hydrochelidon), 13.
marginata (Sterna), 127.
marina (Pachyptila), 362.
marina (Pelagodroma), 362.
marina (Procellaria), 362.
marina (Sterna), 57.
marina (Thalassidroma), 362.
marinus (Dominicanus), 244.
marinus (Larus), 169, 172, 241, 245, 255, 258, 260, 262, 263, 268, 297, 458.
marinus schistisagus (Larus), 259.
marinus (Leucus), 243.
marinus (Oceanites), 362.
markhami (Cymochorea), 354.
markhami (Oceanodroma), 347, 354.
masauanus (Larus), 219.
Masked Gull, 210.
maxima (Phaëthusa), 82.
maxima (Sterna), 42, 80, 84, 96.
maximus (Larus), 243, 292.
maximus (Thalasseus), 82.
maxuriensis (Sterna), 87.
maxuriensis (Thalasseus), 87.
mayor, Gabiota, 246.
media (Actochelidon), 87.
media (Sterna), 42, 86, 112.
medius (Larus), 252, 292.
medius (Pelecanopus), 87.
medius (Thalasseus), 87.
Megalestris, 314.
Megalopterus, 136.
megalopterus (Atricilla), 196.
megarhynchos (Sterna), 34.
Melagavia, 169.
melanauchen (Gygis), 127.
melanauchen (Onychoprion), 177.
melanauchen (Sterna), 43, 70, 126.
melanauchen (Sternula), 127.
melania (Cymochorea), 353.
melania (Oceanodroma), 347, 353.
melania (Procellaria), 353, 354.
melania (Thalassidroma), 353, 355.
melanocephala (Gavia), 181.
melanocephala (Melagavia), 181.
melanocephala (Xema), 181.
melanocephalon (Xema), 181.
melanocephalus (Chroicocephalus), 181.
melanocephalus (Chroocephalus), 181.
melanocephalus (Hydrocolæus), 181.
melanocephalus (Larus), 170, 180, 182.
melanocephalus (Melagavia), 181.
melanocephalus (Melanolarus), 181.
melanocephalus (Xema), 181.
melanogaster (Cymodroma), 364, 365.
melanogaster (Fregetta), 365.
melanogaster (Procellaria), 366.
melanogaster (Sterna), 41, 43, 456.
melanogaster (Sternula), 44.
melanogaster (Thalassidroma), 365.
melanogastra (Hydrochelidon), 44.
melanogastra (Procellaria), 365.
melanogastra (Sterna), 13.
melanogastra (Sternula), 44.
melanogenys (Anous), 139, 145, 148.
Melanolarus, 170.
melanophrys (Diomedea), 441, 446, 447.
melanops (Anous), 144.
melanoptera (Hydrocecropis), 102.
melanoptera (Sterna), 51, 102.
melanopus (Procellaria), 406, 410, 455.
melanorhyncha (Sterna), 51, 68, 72, 97.
melanorhyncha (Sternula), 122.
melanorhynchus (Bruchigavia), 233.
melanorhynchus (Larus), 185, 233.
Melanosterna, 40.
melanotis (Sterna), 35.
melanotis (Sylochelidon), 35.
melanotis (Thalassites), 35.
melanotus (Laroides), 252.
melanura (Procellaria), 390.
melanura (Rhynchops), 153, 155, 156.
melanura (Sterna), 108.
melanurus (Adelarus), 228.
melanurus (Larus), 226, 228.
melanurus (Priofinus), 391.
melitensis (Procellaria), 345.
melitensis (Thalassidroma), 345.
meridionalis (Fulmarus), 403.
meridionalis (Gelochelidon), 27.
meridionalis (Hydrochelidon), 13.
meridionalis (Procellaria), 402.
meridionalis (Sterna), 27, 50, 53.
meridionalis (Sternula), 118.
merulinus (Larus), 17.
metopoleucos (Sterna), 117.
Mew, Winter, 279.
michahellesii (Glaucus), 268.
michahellesii (Laroides), 268.
michahellesi (Larus), 188.
michahellii (Larus), 268.
Micranous, 5, 143.
micropterus (Atricilla), 196.
microrhyncha (Gygis), 149, 152.
microrhynchos (Lestris), 336.

microsoma (Halocyptena), 346.
minor (Atricilla), 196.
minor (Cataracta), 316.
minor (Chroicocephalus), 211.
minor (Cirrhocephalus), 198.
minor (Fulmarus), 426.
minor (Laroides), 307.
minor (Larus), 296.
minor (Leucus), 296.
minor (Procellaria), 345, 419, 426.
minor (Rissa), 308.
minor (Thalassidroma), 345.
minuta (Gavia), 175.
minuta (Hydrochelidon), 118.
minuta (Sterna), 19, 40, 43, 52, 112, 116, 120, 122, 457.
minuta (Sternula), 44, 114, 118, 120.
minuta americana (Sterna), 123.
minutus (Anous), 145.
minutus (Chroicocephalus), 175.
minutus (Chroocephalus), 175.
minutus (Hydrocolœus), 175.
minutus (Larus), 163, 170, 173, 185.
minutus (Xema), 174, 175.
modestus (Chroicocephalus), 224.
modestus (Epitelolarus), 224.
modestus (Larus), 169, 171, 223.
mœstissima (Cymodroma), 367.
mœstissima (Fregetta), 367.
mollis (Fulmarus), 406.
mollis (Œstrelata), 398, 406, 412, 413, 455.
mollis (Procellaria), 406, 410, 412, 414.
mollis (Rhantistes), 406.
moltke (Larus), 296.
monorhis (Oceanodroma), 347, 356.
monorhis (Procellaria), 356.
monorhis (Thalassidroma), 356.
Mouette blanche, 302.
Mouette brune, 136.
Mouette cendrée, 207.
Mouette cendrée, Grande, 277.
Mouette cendrée tachetée, 305.
Mouette d'hiver, 305.
Mouette grise, Petite, 207.
Mouette rieuse, 194, 209.
Mouette tachetée, 306.
Mouton, 422.
mülleri (Larus), 243.
mystacalis (Inca), 132.

Nænia, 4, 132.
nævia (Pagodroma), 419.
nævia (Sterna), 6, 17.
nævius (Larus), 209, 243, 306.
napoleonis (Gygis), 150.
natalensis (Sterna), 120.
nativitatis (Puffinus), 370, 389.
Nectris, 368.
neglecta (Œstrelata), 399, 412.
neglecta (Procellaria), 412.
neglectus (Epitelarus), 300.
neglectus (Procellarus), 300.
nelsoni (Larus), 173, 284, 287, 288, 296.
neptunus (Adelarus), 222.
nereis (Garrodia), 361.
nereis (Oceanites), 361.
nereis (Procellaria), 361.
nereis (Sterna), 43, 112.
nereis (Sternula), 112.
nereis (Thalassidroma), 361.
niger (Anoüs), 137.
niger (Hydrochelidon), 8.
niger (Rhynchops), 154, 158.
nigra (Hydrochelidon), 5, 8, 13, 17, 18, 21.
nigra (Procellaria), 396, 455.
nigra (Rhincops), 154.
nigra (Rhynchops), 152, 153, 155, 156, 160.
nigra (Sterna), 8, 17, 20.
nigra surinamensis (Hydrochelidon), 21.
nigra (Viralva), 19.
nigricans (Hydrochelidon), 19.
nigrifrons (Sterna), 72.
nigripallus (Larus), 244.
nigripennis (Œstrelata), 398, 409.
nigripennis (Pelecanopus), 91.
nigripes (Diomedea), 440, 445.
nigrodorsalis (Laroides), 252.
nigrotis (Larus), 175.
nigrum (Hydrochelidon), 19, 21.
nilotica (Gelochelidon), 28.
nilotica (Hydrochelidon), 13, 28.
nilotica (Sterna), 25, 28, 57.
nitzschii (Sterna), 57.
nivea (Gavia), 303.
nivea (Pagodroma), 419.
nivea (Pagophila), 304.
nivea (Procellaria), 419.
nivea (Rissa), 280, 312.
nivea (Sterna), 150.
niveum (Daption), 419.
niveus (Fulmarus), 419.
niveus (Larus), 279, 302, 308.
Noddy, 136, 137.
Noddy Tern, 139.
Noir Manteau, 243.
novæ-georgica (Pagodroma), 419.
novæ-hollandiæ (Gelastes), 236.
novæ-hollandiæ (Larus), 170, 171, 235, 236, 238.
novæ-hollandiæ (Sterna), 90.
novæ-hollaudiæ (Xema), 236.
nubilosa (Sterna), 18, 103.
nugax (Puffinus), 384.
nuttalli (Hydrocecropis), 28.
nuttalli (Sterna), 27.

oahuensis (Sterna), 108.
obscura (Hydrochelidon), 19.
obscura (Nectris), 382.
obscura (Procellaria), 382.
obscurus (Puffinus), 369, 382, 384.
occidentalis (Glaucus), 257.
occidentalis (Laroides), 257, 274.

occidentalis (Larus), 172, 255, 257, 270.
oceani (Sterna), 64.
oceanica (Procellaria), 358, 361, 364, 366.
oceanica(Thalassidroma), 359.
oceanicus (Oceanites), 358, 359.
Oceanites, 358.
Oceanitinæ, 343, 358.
Oceanodroma, 343, 347.
Oceanus, 322.
Œstrelata, 368, 397.
Oiseau de Tempête, 344.
olivaceorhynchus (Diomedea), 452.
olivaceorostris (Diomedea), 452.
Onychoprion, 40.
opisthomelas (Puffinus), 369, 380, 383.
orientalis (Procellaria), 357.
orientalis (Rhynchops), 158.
orientalis (Sternula), 118.
Ossifraga, 422.
ossifraga (Procellaria), 423.

Pachyptila, 432.
Pacific Gull, 297.
pacifica (Procellaria), 427.
pacifica (Sterna), 150.
pacificus (Fulmarus), 427.
pacificus (Gabianus), 297, 298.
pacificus (Larus), 247, 297.
pacificus (Puffinus), 399.
pæocephalus (Larus), 240.
Pagodroma, 368, 419.
Pagophila, 161, 301.
pallasi (Ichthyaëtus), 178.
pallida (Hydrochelidon), 19.
pallida (Xema), 210.
palpebrata (Diomedea), 453.
palustris (Gelochelidon), 28.
panaya (Haliplana), 103.
panaya (Onychoprion), 102.
panaya (Sterna), 102.
Panayan Tern, 101.
panayana (Sterna), 103.
panayensis (Haliplana), 102.
panayensis (Hydrocecropis), 102.
panayensis (Onychoprion), 103.
panayensis (Sterna), 102.
paradisea (Sterna), 72.
paradisæa (Sterna), 62.
parasita, var. camtschatica (Catarracta), 323.
parasita (Catarractes), 334.
parasita (Lestris), 337.
parasitica (Catharacta), 334.
parasitica (Lestris), 323, 329, 330, 334.
parasiticus (Cataractes), 330.
parasiticus (Larus), 322, 328, 334.
parasiticus, var. coprotheres (Lestris), 331.
parasiticus (Oceanus), 329.
parasiticus (Stercorarius), 320, 322, 328, 334, 336.
parkinsoni (Fulmarus), 397.
parkinsoni (Majaqueus), 395, 397.
parkinsoni (Procellaria), 397.
parkinsoni (Puffinus), 397.
parva (Sterna), 112.
parvirostris (Œstrelata), 398, 405.
parvirostris (Procellaria), 405.
parvirostris (Rhantistes), 405,
parvulus (Anous), 133.
pauli de wurtemberg (Thalasseus), 77.
payraudei (Larus), 272.
pelagica (Procellaria), 343, 344, 346, 348, 358.
pelagica (Thalassidroma), 344.
pelagicus (Dominicanus), 246.
pelagicus (Hydrobates), 344.
pelagicus (Larus), 247, 259.
pelagina (Procellaria), 344.
Pelagodroma, 358, 362.
Pelea, 358, 364.
Pelecanoides, 437.
pelecanoides (Pelecanopus), 91, 135.
pelecanoides (Sterna), 91, 93.
pelecanoides(Thalasseus), 91.
Pelecanoididæ, 342, 437.
Pelecanopus, 40.
Pelodes, 5.
persicus (Puffinus), 369, 381.
personata (Gavia), 189.
personatus (Chroicocephalus), 189.
personatus (Larus), 189.
Peterel, 343.
Peteril, Antarctic, 392.
Peteril, Blue, 431, 432.
Peteril, Great Black, 395.
Peteril, Little, 343.
Pétrel, 343.
Pétrel antarctique, 392.
Petrel, Black, 395.
Pétrel blanc et noir, 428.
Pétrel blanc ou de neige, 419.
Pétrel bleu, 432.
Petrel, Blue, 431.
Petrel, Broad-billed, 432.
Petrel, Brown-banded, 434.
Petrel, Bulwer's, 421.
Pétrel cendré, 390, 425.
Pétrel chlororhynque, 372.
Petrel, Cinereous, 390.
Petrel, Diving, 437.
Petrel, Dusky, 382.
Petrel, Fork-tailed, 356.
Petrel, Frigate, 362.
Petrel, Fulmar, 425.
Petrel, Giant, 422.
Petrel, Great Black, 453.
Petrel, Grey, 386.
Petrel, Kuril, 386.
Petrel, Norfolk Island, 412.
Petrel, Osprey, 422.
Petrel, Pintado, 428.
Pétrel-Puffin brun, 395.
Petrel, Shearwater, 376.
Petrel, Snowy, 419.
Petrel, Sooty, 352.
Pétrel de St. Kilda, 425.
Petrel, Stormy, 344.
Pétrel tacheté, 428.

Pétrel très-grand, 422.
Pétrel, Vittated, 432.
Petrel, White and Black-spotted, 428.
Petrel, White-breasted, 412.
Petrel, White-faced, 373.
Petrel, Wilson's, 359.
Petterill, the larger dark, 403.
Pewit Gull, 209.
phæocephala (Xema), 198.
phæocephalus (Larus), 198.
phæopygia (Œstrelata), 398, 407.
Phaëthusa, 4, 23.
philadelphia (Chrœocephalus), 186.
philadelphia (Larus), 170, 185, 186, 187.
philadelphia (Sterna), 185.
philadelphicus (Larus), 186.
philippina (Sterna), 137.
philippina (Thalasseus), 139.
phillipi (Fulmarus), 414.
phillipi (Œstrelata), 406, 412.
phillipi (Procellaria), 412.
Phœbastria, 440.
Phœbetria, 453.
Pierre-garin, 55.
pikei (Sterna), 64.
pileata (Sterna), 137.
pileatum (Xema), 210.
pileatus (Anous), 139.
pileatus (Chloirocephalus), 211.
pileatus (Chroicocephalus), 211.
pipixcan (Gavia), 192.
pipixcan (Larus), 191.
pipixcan (Xema), 191.
placens (Sternula), 112, 114.
Planetis, 40.
Plautus, 169.
plumbea (Anous), 21.
plumbea (Hydrochelidon), 21.
plumbea (Sterna), 20.
plumbeigularis (Anous), 139, 141.
plumbeus (Megalopterus), 133.
plumbiceps (Cirrhocephalus), 198.
plumbiceps (Hydrocolæus), 181.
plumbiceps (Larus), 181, 195.
plumiceps (Xema), 181.
pœocephalus (Larus), 198.
poiocephala (Xema), 198.
poiocephalus (Cirrhocephalus), 198.
poiocephalus (Larus), 198, 240.
polaris (Thalassœca), 393, 394.
poliocephalus (Larus), 198, 199.
poliocerca (Sterna), 91, 92, 93.
poliocerca (Sylochelidon), 91.
poliocerca (Thalasseus), 91, 92.
poliocercus (Pelecanopus), 91.
polionotus (Larus), 198.
polios (Larus), 224.
pollicaris (Rissa), 309, 310, 313.
polo-condor (Larus), 70.
polo-condor (Rissa), 72.
pomare (Bruchigavia), 235.
pomare (Gavia), 233.
pomare (Gelastes), 235.
pomare (Larus), 233.
pomarhinus (Lestris), 324.
pomarina (Catarracta), 324.
pomarina (Lestris), 323, 330.
pomarina (Sterna), 57.
pomarina (Sternula), 118.
pomarinus (Cataractes), 324.
pomarinus (Coprotheres), 324.
pomarinus (Stercorarius), 316, 324, 325.
pomarre (Gavia), 235.
pomatorhinus (Coprotheres), 325.
pomatorhinus (Lestris), 324.
pomatorhinus (Stercorarius), 322, 324, 458.
Pomerine Skua, 324.
pomerinus (Lestris), 324.
Port Egmont Hen, 319.
portlandica (Sterna), 64, 65.
Prædatrix, 322.
Priamphus, 432.
Priocella, 368, 393.
Priofinus, 368, 390.
Prion, 422, 432.
Procellaria, 343.
Procellariidæ, 342, 343.
Procellariinæ, 343.
Procellarus, 299.
procellosus (Laroides), 280.
procellosus (Larus), 279.
Procelsterna, 4, 133.
Prœdatrix, 329.
profuga (Diomedea), 452.
Pseudoprion, 432.
Pterodroma, 397.
Puffin, 375, 390.
Puffin cendré, 375, 390.
Puffin, Cinereous, 376.
Puffin du Cap de Bonne Espérance, 395.
Puffin of Isle of Man, 377.
Puffin Pétrel, 377.
Puffinidæ, 342, 368.
Puffininæ, 368.
Puffinuria, 437.
Puffinus, 368.
puffinus (Nectris), 378.
puffinus (Procellaria), 375, 376.
puffinus (Puffinus), 368, 378.
pulo-condor (Larus), 70.
punctata (Procellaria), 428.
pusilla (Sterna), 114.
pusilla (Sternula), 114.
pygmæus (Larus), 175.

quadricolor (Larus), 271.
Quebrantahuesos, 422.

raoulensis (Procellaria), 412.
raoulensis (Rhantistes), 412.
Rayador, 155.
rectirostris (Sterna), 91.
Red-legged Gull, 209.
regia (Diomedea), 440, 443.
regia (Phætusa), 81.
regia (Sterna), 81, 82.
regius (Thalasseus), 81, 82.
Rhodostethia, 161, 167.
Rhynchops, 152, 457.
Rhynchopsalia, 152.
richardsoni (Larus), 167.
richardsoni (Lestris), 330.

richardsoni (Stercorarius), 331.
richardsonii (Cataractes), 331.
Richardson's Skua, 331.
ridibunda (Gavia), 209, 211.
ridibunda phœnicopos (Gavia), 176.
ridibunda (Xema), 210.
ridibundum (Xema), 210.
ridibundus (Chrœocephalus), 211.
ridibundus (Chroicocephalus), 210, 211.
ridibundus (Chroocephalus), 211.
ridibundus (Hydrocolæus), 211.
ridibundus (Larus), 169, 171, 195, 204, 207, 211, 212, 240, 457.
ridibundus minor (Larus), 210.
ridibundus (Xema), 209.
riga (Larus), 307.
risoria (Sterna), 27.
Rissa, 161, 305.
rissa (Laroides), 307.
rissa (Larus), 305.
rodgersi (Fulmarus), 424, 427, 428.
rosea (Rhodostethia), 163, 167.
rosea (Rossia), 167.
roseata (Sterna), 37.
Roseate Tern, 70, 72.
roseiventris (Gavia), 204.
roseiventris (Larus), 204.
roseus (Larus), 167.
Rossia, 167.
rossii (Larus), 167.
rossii (Prion), 436.
rossi (Rhodostethia), 167.
rostrata (Œstrelata), 398, 404.
rostrata (Procellaria), 404.
rostrata (Rhantistes), 404.
rousseaui (Anous), 139.
rubritarsi (Procellaria), 402.
rubriventris (Gelastes), 230.
rufescens (Larus), 255.
Rygchopsalia, 152.

Sabine's Gull, 163.
sabini (Gavia), 163.
sabinii (Chema), 163.
sabinii (Larus), 162.
sabinii (Xema), 161, 162.
salvini (Thalassogeron), 450.
saneti-pauli (Sterna), 51.
sandaliata (Procellaria), 413.
sandaliata (Rhantistes), 413.
sandvicensis (Actochelidon) 78.
sandvicensis (Sterna), 75.
sandvicensis acuflavida (Sterna), 77.
Sandwich Tern, 75.
sandwichensis (Æstrelata), 407.
saundersi (Chroicocephalus), 184.
saundersi (Larus), 170, 183, 184.
saundersi (Sterna), 43, 112, 120, 121, 457.
scalaris (Œstrelata), 399, 416.
scapulata (Thalassidroma), 348, 353.
schillingi (Sterna), 34.
schillingi (Sylochelidon), 35.
schimperi (Chroicocephalus), 191.
schimperi (Larus), 183.
schistisagus (Larus), 172, 258, 259, 270.
schleepi (Lestris), 330.
scopulinus (Larus), 171, 238, 239.
scopulinus (Lestris), 238.
scopulinus major (Larus), 236.
scopulinus, var. major (Larus), 235.
scoresbii (Larus), 299.
scoresbii (Leucophæus), 299, 300.
Sea Swallow, Greater, 54.
Sea Swallow, Lesser, 17.
Seena, 4, 37.
seena (Sterna), 37.
seena (Sylochelidon), 38.
segethi (Oceanitis), 366.
segethi (Thalassidroma), 366.
sellovii (Phaëtusa), 130.
semi-alba (Sterna), 149.
senegalensis (Hydrocecropis), 57.
senegalensis (Sterna), 57, 64, 69.
senex (Anous), 139, 144, 146.
senex (Sterna), 137.
septentrionalis (Rissa), 283.
sericea (Œstrelata), 401.
sericeus (Adamastor), 401.
sericeus (Puffinus), 401.
serrana (Gavia), 189.
serranus (Chroicocephalus), 191.
serranus (Larus), 170, 188, 189, 201.
serrata (Haliplana), 108.
serrata (Sterna), 108, 109.
serratus (Onychoprion), 108, 109.
Shearwater, 369, 376, 403.
Shearwater, Greater, 376.
Shearwater, Manx, 376, 378.
Shearwater, var. A, 373.
Silvery Gull, 252.
similis (Hydrocecropis), 12.
similis (Hydrochelidon), 13.
similis (Procellaria), 431.
similis (Sterna), 11, 15.
Simple Tern, 23, 106.
simplex (Sterna), 23.
simplex (Viralva), 23.
sinensis (Sterna), 43, 113.
sinensis (Sternula), 114.
sinensis (Viralva), 114.
Skimmer, Black, 154, 156.
skua antarcticus (Buphagus), 320.
Skua, Buffon's, 336.
skua (Buphagus), 316, 317.
skua (Cataracta), 315.
skua (Cataractes), 316.
skua (Catharacta), 315.
Skua, Common, 316.
Skua Gull, 315.
skua (Lestris), 315.
skua (Megalestris), 317.
Skua, Pomerine, 324.
Skua, Richardson's, 331.
skua (Stercorarius), 316, 317.
smithi (Procellaria), 394.
smithsonianus (Larus), 263.

socorroensis (Oceanodroma), 347, 352.
solandri (Cookilaria), 410.
solandri (Fulmarus), 410.
solandri (Œstrelata), 398, 410.
solandri (Procellaria), 410.
solandri (Pterodroma), 410.
somalensis (Hydrochelidon), 109.
Sooty Tern, 106.
Southern Tern, 50.
spadacea(Diomedea),442, 453.
spadacea,var.(Diomedea), 444.
spadicea (Anous), 108.
spadicea (Sterna), 107.
spaeriuros (Lestris), 324.
speculifera (Sterna), 23.
speculifera (Sylochelidon), 24.
sphæriuros (Lestris), 324.
sphenura (Procellaria), 372.
sphenurus (Majaquens), 372.
sphenurus (Thiellus), 372.
spinicauda (Lestris), 331.
spinicanda (Stercorarius), 331.
Stercoraire, 328.
Stercoraire à longue queue, 334.
Stercorarius, 314, 322.
Sterna, 4, 40.
sterna (Larus), 54.
Sternolophota, 132.
Sternula, 40.
Stolida, 136.
stolida (Sterna), 132, 136.
stolidus (Anous), 136, 137, 143.
stolidus (Megalopterus), 137, 143.
Storm-fink, 343.
strenua (Sylochelidon), 35.
strenuus (Sylochelidon), 35.
striata (Gygis), 97.
striata (Sterna), 97.
Striated Tern, 97.
striatus (Lestris), 324.
striatus (Stercorarius), 325.
stricklandi (Puffinus),387.
stubberica (Sterna), 77.
subleucoptera (Hydrochelidon), 8.
subleucopterus (Laroides), 296.
subroseus (Larus), 231.
subulirostris (Chroicocephalus), 186.
suckleyi (Larus), 280,283.
sumatrana (Sterna), 114, 120, 128.
sumatranus (Onychoprion), 128.
superciliaris (Sterna), 43, 123, 124.
superciliaris antillarum (Sterna), 123.
superciliaris (Sternula), 122, 125.
superciliosus(Anous),139, 141.
Surinam Tern, 20.
surinamensis (Hydrochelidon), 5, 20, 21.
surinamensis (Pelodes), 21.
surinamensis (Sterna), 20, 126.
Sylochelidon, 32.

Tarrock, 306, 307.
tenebrosus (Puffinus),382.
tenuirostris (Anous), 139, 144, 146, 148.
tenuirostris (Fulmarus), 394.
tenuirostris (Gelastes), 231.
tenuirostris (Hydrocecropis), 144.
tenuirostris (Larus), 230.
tenuirostris (Megalopterus), 137, 144, 146.
tenuirostris (Micranous), 143, 144, 148, 457.
tenuirostris (Nectris),389.
tenuirostris (Priocella), 389, 394.
tenuirostris (Procellaria), 388, 393.
tenuirostris (Puffinus), 370, 388.
tenuirostris (Sterna), 72, 144, 145.
tenuirostris (Thalassidroma), 345.
tenuirostris (Thalassœca), 393.
tephras (Stercorarius), 331.
tephrodes (Anous), 134.
tereticollis (Anous), 133.
tereticollis (Procelsterna), 133.
teretirostris (Sterna), 133.
Tern, African, 75.
Tern, Arctic, 62, 64.
Tern, Black, 17, 18.
Tern, Brown, 106.
Tern, Caspian, 32, 34, 89.
Tern, Cayenne, 80.
Tern, Chinese, 113.
Tern, Cinereous, 6.
Tern, Common, 46, 54, 55.
Tern, Dusky, 106.
Tern, Egyptian, 25.
Tern, Greater, 54.
Tern, Gull-billed, 28.
Tern, Hooded, 117.
Tern, Lesser, 116.
Tern, New Holland, 90.
Tern, Noddy, 139.
Tern, Panayan, 101.
Tern, Roseate, 70, 72.
Tern, Sandwich, 75.
Tern, Simple, 23, 106.
Tern, Sooty, 106.
Teru, Southern, 50.
Tern, Striated, 97.
Tern, Surinam, 20.
Tern, Whiskered, 12.
Tern, White, 149.
Tern, Wreathed, 51.
tethys (Procellaria), 343, 346.
Thalassæa, 40.
Thalassarche, 440, 449.
Thalasseus, 32, 40.
Thalassidroma, 343.
Thalassipora, 40.
Thalassites, 23.
Thalassœca, 368, 392, 393.
Thalassogeron, 449.
Thiellus, 368.
thuliaca (Lestris), 331.
Thyellas, 378.
Thyellodroma, 369.
tibetana (Sterna), 58, 457.
tibetanus (Chroicocephalus), 216.
tibetanus (Larus), 216.
Tohaiki, 444.
torquata (Œstrelata),408.
torquata (Procellaria), 367, 408.
torquatus (Larus), 307.
torresi (Pelecanopus), 87.
torresii (Sterna), 87.
torresii (Thalasseus), 87.
townsendi (Oceanodroma), 353.

tridactyla (Cheimonea), 307.
tridactyla pollicaris (Rissa), 309, 310.
tridactyla (Procellaria), 438.
tridactyla (Rissa), 305, 307, 308, 313, 458.
tridactyla kotzebui (Rissa), 309.
tridactylum (Xema), 308.
tridactylus (Gavia), 307.
tridactylus (Laroides), 307.
tridactylus (Larus), 305, 308.
tridactylus, var. kotzebui (Larus), 309.
trinitatis (Œstrelata), 399, 413.
tristis (Puffinus), 386.
tristrami (Oceanodroma), 347, 354.
tropica (Cymodroma), 367.
tropica (Oceanites), 365.
tropica (Procellaria), 365, 367.
tropica (Thalassidroma), 365.
trudeaui (Gelochelidon), 130.
trudeauii (Phætusa), 130.
trudeaui (Sterna), 43, 130.
trudeaui (Thalasseus), 130.
tschegrava (Sterna), 34.
Tubinares, 340.
turtur (Pachyptila), 435.
turtur (Prion), 435.
turtur (Procellaria), 435.
turtur (Pseudoprion), 435.
typica (Halobæna), 431.
typus (Adamastor), 391.

ungax (Procellaria), 384.
unicolor (Anous), 139.
unicolor (Rhantistes), 410.
unicolor (Sterna), 137.
urinatrix (Halodroma), 437, 438.
urinatrix (Pelecanoides), 437, 438.
urinatrix (Procellaria), 437.
urinatrix (Puffinuria), 438.

vagabunda (Procellaria), 401.
variegata (Procellaria), 412.
varius (Larus), 262.
vegæ (Larus), 172, 269, 270.
velox (Cookilaria), 417.
velox (Gelochelidon), 28.
velox (Pelecanopus), 91.
velox (Procellaria), 418, 431.
velox (Rhantistes), 418.
velox (Sterna), 90, 97.
velox (Sylochelidon), 91.
velox (Thalasseus), 91.
verreauxi (Clupeilarus), 247.
verreauxi (Dominicanus), 247.
verreauxii (Larus), 247.
vetula (Dominicanus), 247.
vetula (Larus), 247.
Viralva, 5.
virgata (Sterna), 41, 50, 51, 53.
vittata (Hydrocecropis), 51.
vittata (Pachyptila), 433.
vittata (Procellaria), 432.
vittata (Sterna), 41, 50, 51, 456.
vittatus (Prion), 432, 435.
vociferus (Dominicanus), 247.
vociferus (Larus), 247.
vulgaris (Cataractes), 316.

Wagel Gull, 243.
warnecki (Larus), 312.
Whiskered Tern, 12.
White Gull, 277.
White Tern, 149.
wilsoni (Hydrocecropis), 57.
wilsoni (Oceanites), 359.
wilsoni (Procellaria), 358.
wilsoni (Sterna), 53, 57.
wilsoni (Thalassidroma), 359, 361.
Winter Gull, 307.
Winter Mew, 279.
Wreathed Tern, 51.

Xema, 161, 169.

yelkouan (Procellaria), 379.
yelkouan (Puffinus), 379.
yelkuanus (Puffinus), 369, 379.

Zalias, 369.
Zapriun, 431.
zealanicus (Puffinus), 371.
zonorhynchus (Larus), 273, 274.

PRINTED BY TAYLOR AND FRANCIS, RED LION COURT, FLEET STREET.

LIST OF PLATES.

Megalestris maccormicki, p. 321 ..... Pl. I.

Oceanodroma monorhis, p. 356 ..... Pl. II.

Oceanodroma hornbyi, p. 356 ..... Pl. III.

Puffinus persicus, p. 381 ..... Pl. IV.

Majaqueus parkinsoni, p. 397 ..... Pl. V.

Œstrelata cervicalis, p. 411 ..... Pl. VI.

Œstrelata axillaris, p. 418..... Pl. VII.

Diomedea irrorata, p. 445 ..... Pl. VIII.

J. Smit del. et lith.

$\frac{1}{3}$

Megalestris maccormicki.

Hintern Bros. Chromo lith.

H. Smit. del et lith. Mintern Bros. Chromo lith.

$\frac{3}{4}$

Oceanodroma monorhis.

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Z
S
D

J. Smit del et lith

Oceanodroma hornbyi.

Mintern Bros. Chromo lith

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NATURAL HISTORY

J. Smit del et lith

Puffinus $\frac{1}{2}$ *persicus.*

Mintern Bros. Chromo lith

BRITISH MUSEUM
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Z
D

J. Smit. del. et lith.

$\frac{1}{3}$

Majaqueus parkinsoni.

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Œstrelata cervicalis.

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J. Smit del. et lith.

Œstrelata $\frac{1}{2}$ *axillaris.*

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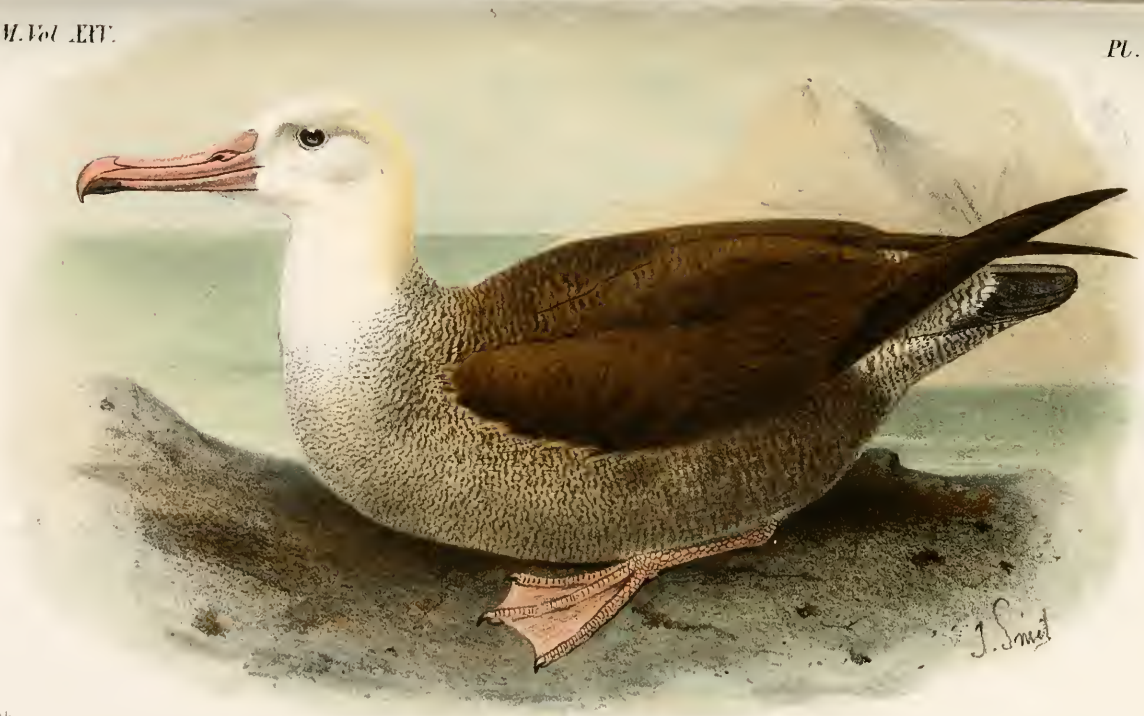

J. Smit. del. et lith.

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